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May 30, 1960

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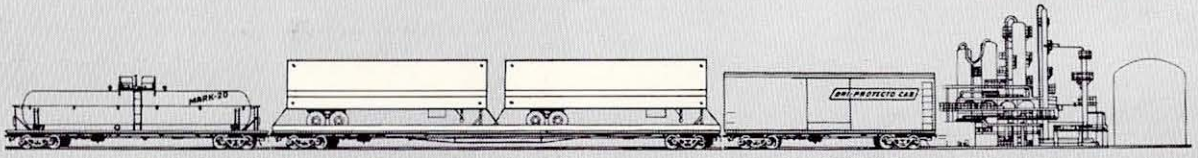

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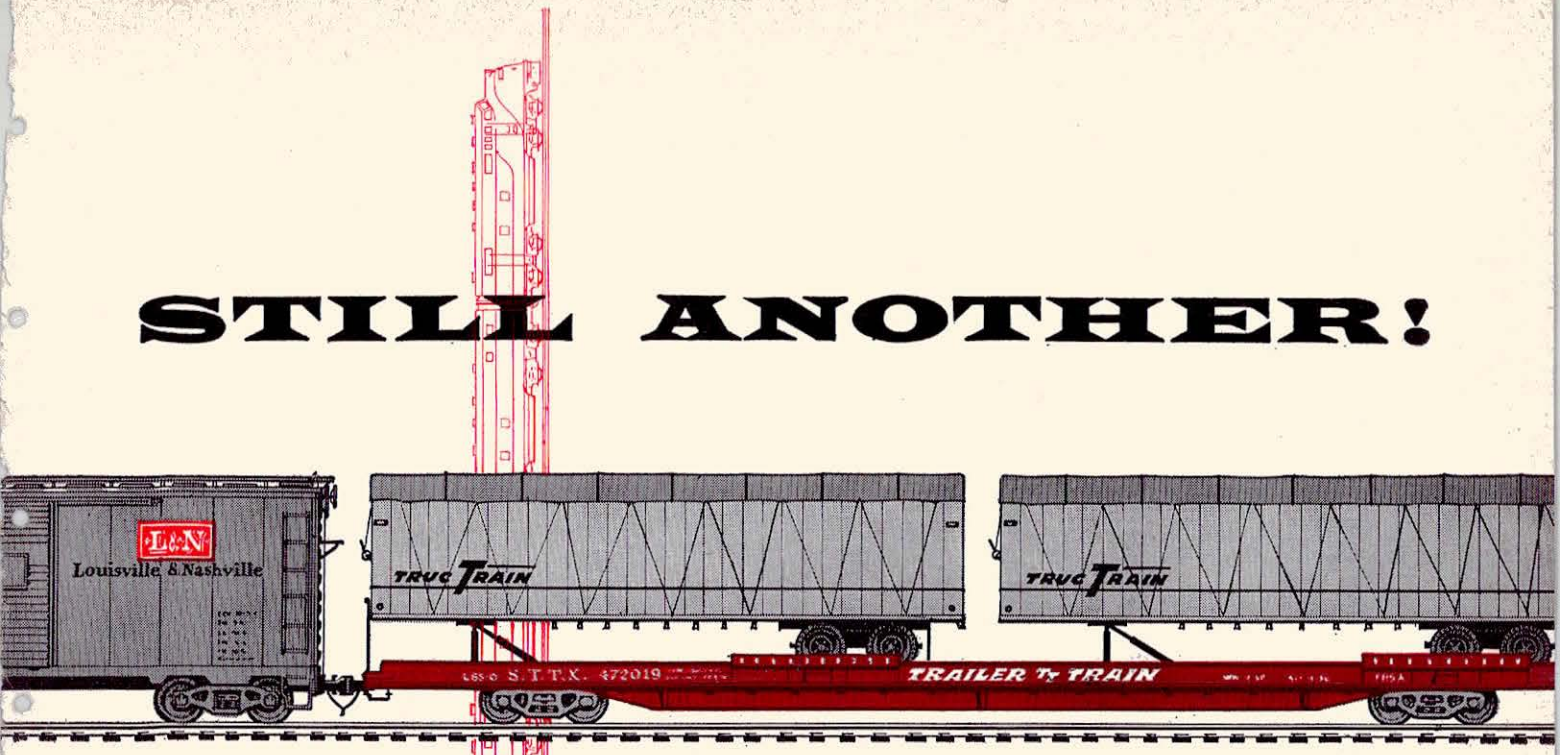

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6. *It must* be able to measure temperature at the *best possible point* so that similar readings are obtained for both roller and friction bearings.

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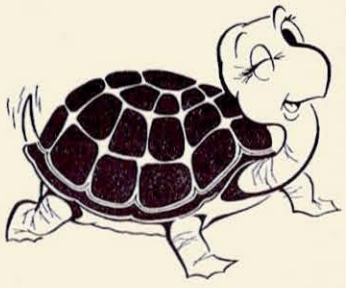
If you'd like further information on the new UNION Hot Bearing Detector, your Union Switch & Signal representative is prepared to discuss details at your convenience.



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RAILWAY AGE *weekly* May 30, 1960 • Vol. 148, No. 22

Week at a Glance

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Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.

Published weekly by the Simmons-Boardman Publishing Corporation at 440 Boston Post Road, Orange, Conn. Second-class postage paid at the Post Office at Orange, Conn. James G. Lyne, chairman of the board; Arthur J. McGinnis, president and treasurer; Duane C. Salisbury, executive vice-president; George Dusenbury, vice-president and editorial and promotion director; Robert G. Lewis, Joe W. Kizzia, M. H. Dick, M. J. Figa, R. C. Van Ness, vice-presidents.

Containers: The right track? ..... p. 9

Everybody's talking about containerization—but so far very few have done anything about it. While the broad concept is pretty generally accepted, a lot of details remain to be worked out.

Traffic Poll—Air freight seen sure to grow ..... p. 13

Shippers foresee a bright future for air freight. Three-quarters of those responding to this month's Poll expect to use it more in years to come than they do now. None expect to use it less. But most of them think it will hit trucks harder than rails.

Cover Story—G-P likes 'garage-door' car ..... p. 16

First West Coast test, by Georgia-Pacific Corp., of the Southern's new experimental "garage-door" lumber car appears to have been a complete success. A highly-mixed load, put aboard in one-sixth normal time, traveled cross-country damage-free.

Cover Story—Why Spencer Kellogg uses rails ..... p. 20

There are four important reasons—special equipment, high capacity, dependable schedules and transit rates—that lead Spencer Kellogg and Sons to rely on railroads for 95% of their total transportation needs. But like many other shippers, Spencer Kellogg would like to see the rails move faster when rate adjustments are needed.

Cover Story—This 'co-op' really works ..... p. 26

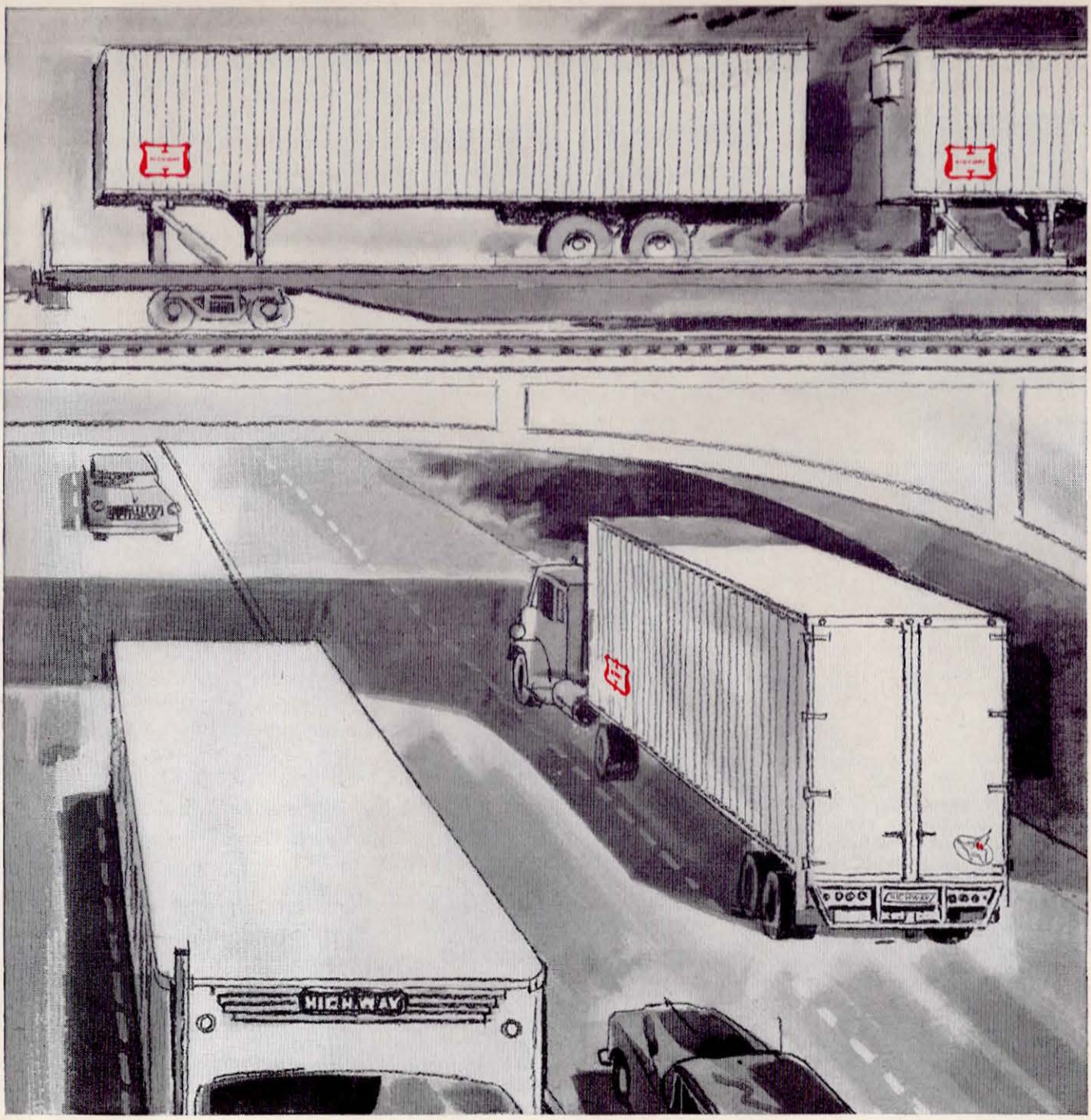
The Charter Oak Shippers' Cooperative Association "has taken Connecticut manufacturers out of the ocean, put them back on shore competitively." Here's how it's been done, by shippers and carriers working together for their mutual benefit.

Cost finding in one lesson p.32

Here's how one ingenious traffic man determines his railroad's out-of-pocket costs for handling cars. He's calculated such costs for various weights of lading, cars, and distances.

San Francisco transit cost: $1.2 billion p.37

The proposed Bay area 132-mile system would be almost completely automatic. Present indications are that more-or-less standard transit equipment and line construction will be utilized.



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Week at a Glance CONT.

Current Statistics

Operating revenues	
3 mos., 1960 ...	$2,410,965,646
3 mos., 1959 ...	2,389,964,223
Operating expenses	
3 mos., 1960 ...	1,913,146,741
3 mos., 1959 ...	1,909,302,375
Taxes	
3 mos., 1960 ...	266,237,113
3 mos., 1959 ...	248,387,179
Net railway operating income	
3 mos., 1960 ...	146,864,256
3 mos., 1959 ...	154,645,582
Net income estimated	
3 mos., 1960 ...	99,000,000
3 mos., 1959 ...	100,000,000
Average price railroad stocks	
May 24, 1960 ..	95.13
May 26, 1959 ..	111.80
Carloadings, revenue freight	
19 wks., 1960 ..	11,348,917
19 wks., 1959 ..	11,508,538
Freight cars on order	
May 1, 1960 ...	41,003
May 1, 1959 ...	35,479
Freight cars delivered	
4 mos., 1960 ..	19,429
4 mos., 1959 ..	10,964

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Printed at the Wilson H. Lee Co., Orange, Conn.

P&S Division meets in Chicago p.49

The AAR group's 34th annual meeting will be held in the Palmer House June 1-3. On the final day, a four-man panel of railroad supply company representatives will answer questions from a railroad-man audience.

Industrial development pays off p.58

Railroads spend more than all other private industry combined to promote the economic welfare of the territories in which they operate. The money gives every evidence of being well spent.

Nitrogen keeps loads frozen p.60

Complete elimination of railroad "icing" charges in freight bills covering movement of frozen products is said to be possible with a new insulating concept. The patent holder is offering to license the new system to frozen-food processors.

P-S previews 'Lo-Dek' flat car p.64

The car will carry trailers of all types and will be equipped to handle containers, interchangeably and without equipment modification. Its design makes for efficient terminal operations, economical construction and maintenance, and compatibility with most TOFC equipment.

The Action Page—What principles for freight rates? p.90

Railroad rate-making practices are, in general, unsatisfactory to railroads and their patrons alike. Here are some suggestions for revision of the practices.

Short and Significant

C&O will apply to the ICC . . .

within a matter of days for the right to acquire control of the B&O through a stock exchange plan (RA, May 23, p. 9), President Walter Tuohy indicated last week. Mr. Tuohy wants seats on the B&O board for himself and three other C&O officers, in return has offered B&O President Howard E. Simpson and three other B&O executives representation on the C&O board.

L&N's DeCoursey, Ky., freight classification yard . . .

will be enlarged and modernized at an estimated cost of $11.5 million. L&N will construct a new 24-track, manually controlled retarder hump yard for southbound traffic; a southbound receiving, departure and storage yard; a northbound receiving yard; and install mechanical department facilities for locomotive inspection and service and for light repairs to freight cars. Completion date: 1963.

When you order new cars, or rebuild old ones, specify . . .

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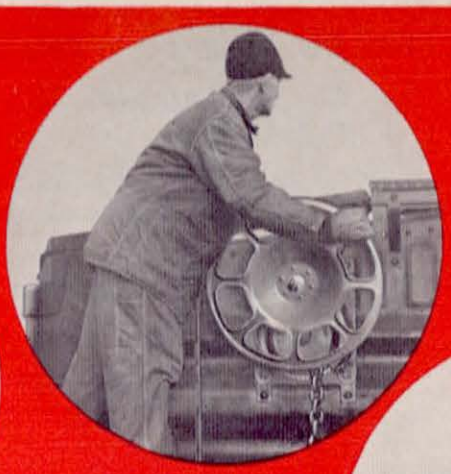

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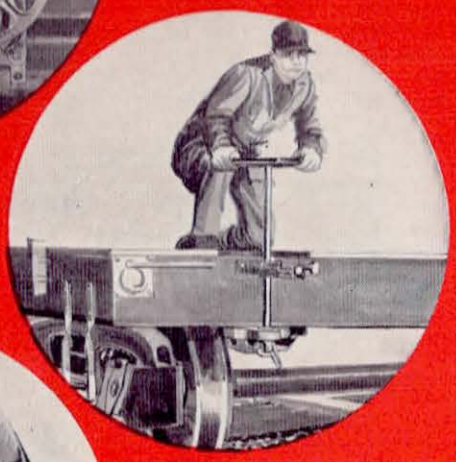

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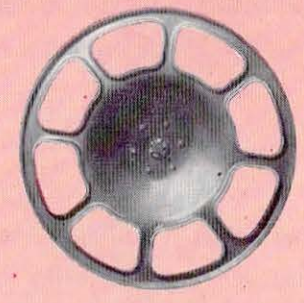
LEVER OR PUMP HANDLE TYPE (No. 3700-B)



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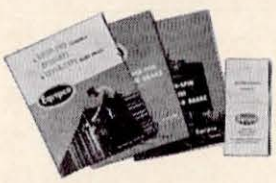
Equipco will furnish application drawings for any of their hand brakes upon receipt of necessary car detail drawings, without obligation.



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Containers: The Right Track?

► **The Story at a Glance: Containerization threatens to become the hottest conversation topic in transportation in 1960.**

Up to now, discussion of this controversial but popular idea has far outpaced actual applications. Yet ship lines in particular are moving ahead, an imposing roster of manufacturers has entered the field with prototypes or production models, and some major shippers and forwarders are showing more than passing interest.

Railroad men, many of whom recall the splurge of container interest which fell by the wayside in the early Thirties, view present container ideas with caution. Before going ahead, they want to be sure they're on the right track.

Containerized transportation today is a bit like the politicians' classic position on Motherhood: everybody's for it because it just isn't proper to be otherwise.

Recent weeks have produced a flurry of speeches, announcements and ideas about how containers can—indeed will, in time—revolutionize transportation. Only an occasional protest is heard, usually a "technical" one about integration and through rates, about the lack of standardization in equipment, or about the not-so-simple matter of how best to transfer containers from one carrier to another.

Attempting to analyze what is happening carries certain built-in hazards. Each manufacturer, for example, is certain his development is the key to standardization. Moreover, it is necessary to distinguish between present-day piggybacking, which already includes some varieties of containerization, and *pure* containerization which, ultimately, would consist entirely of units without wheels. But transportation men are being forced to consider such points, and occasionally check-rein their thinking, lest the very real potentials of containerization be washed out by ideas racing off in every direction at once.

Those shippers, carriers and manufacturers who are promoting the boxed freight concept do have a powerful story. To the national economy, the promise of integrated intermodal transportation; to carriers, lower costs, and faster terminal handling; to shippers, single-package transportation from production line to consumer.

C. E. P. Smith, a transportation analyst with Fruehauf, has been studying the container idea for months and recently he put a price tag on what he believes containers can save in transportation. He told the Transportation Research Forum in New York on May 3:

The cost of moving goods around this country amounts to approximately $60 billion annually. About half of this is spent on intercity movement; the remainder is spent in a grand tiddly-winks game of shuffling goods on docks, platforms, between vehicles, and in other side expenses like packaging, damage claims, insurance, and the like.

Containerization proponents, like Mr. Smith, view the container concept as filling the need for "total transportation"—origin to destination, including in-plant handling at both ends of a move. This is essentially a materials handling concept, with all that implies in automation. Coupling its labor-saving potential with expedited terminal handling, the idea is not without appeal.

But the container idea is hardly a reality yet. Sketching in the broad outlines of containerization is easy; it is in working out the infinite details that the time lag arises.

More progress has been made in equipment than anywhere else, although many of the developments represent individual ideas and are not compatible with each other. For example, railroads are offered, already, no fewer than four flat-car designs, apart from the "standard" flat used in conventional piggyback operations. The containers themselves include minor variations, although most of the newer designs are following standards recommended by the National Defense Transportation Association and the American Standards Association—8x8, with lengths in multiples of 10 ft.

The container sales manager of one highway trailer builder told Railway Age a few days ago that containerization today is in the same shape railroads were in before general adoption of the automatic coupler, and that trucking was in before adoption of the standard kingpin.

At no place in the picture is this pointed up more sharply than in the question of how to transfer container

(Continued on page 49)

U.S. Railroaders Off to Moscow

A 10-man U. S. railroad technical mission to the USSR—first in 30 years—will begin inspecting Russian rail centers this week.

The delegation departed May 25—about a week behind schedule due to the failure of visas to arrive on time.

After a brief stopover in western Europe, the group was scheduled to travel by train from Vienna to Moscow, arriving in the Soviet capital May 30. The 30-day itinerary includes the rail centers of Kiev, Kharkov, Rostov, Baku, Stalingrad, Kursk and Leningrad.

The group inaugurates an industrial exchange program arranged by the State Department with the Soviets last November. It is led by Curtis D. Buford, vice president of the operations and maintenance department, AAR, and also includes William M. Keller, AAR vice president—research; John F. Nash, NYC vice president—operations; Paul V. Garin, manager of research and development for the Southern Pacific; Sergei G. Guins, assistant to the research director, C&O; John W. Horine, electrical engineer, PRR; Frank E. Woolford, chief engineer, WP; Lowell B. Yarbrough, superintendent of signals and communications, Wabash; and two State Department interpreters.

A group of Russian railroaders will come to the U. S. in July.

Perlman Sees Two Eastern Systems

New York Central is continuing "studies with the Chesapeake & Ohio and the Baltimore & Ohio with the idea of joining them in a mutually satisfactory arrangement."

With these words, NYC President Alfred E. Perlman last week assured stockholders at the road's annual meeting that the Central had a continuing interest in mergers as a means of building a "sound system of transportation in the public interest."

In confirming reports that the NYC was talking merger with the C&O and B&O, Mr. Perlman said that the mergers which have been accomplished or announced since the NYC and PRR broke off merger talks over a year ago have made it clear that a balanced competitive system is "being assembled by the Pennsylvania Railroad and its subsidiaries. Further, the assembling of this system includes the consolidation of the Norfolk & Western and the Virginian, two of the three so-called Pocahontas carriers. Since, ideally, competitively balanced systems in the East would include access to the Pocahontas region and the Middle Atlantic ports, the N&W-Virginian merger militates against the establishment of more than two balanced competitive systems in the East.

NYC-PRR Union?

"The New York Central," Mr. Perlman continued, "will be an integral and important part of one or the other of these systems. Our studies with the Pennsylvania Railroad showed that attractive savings would be possible through a consolidation of the two companies, with benefits to both parties.

"While these studies have been deferred, neither the Central nor the Pennsylvania has foreclosed the possibility of resuming them.

"On the other hand, the New York Central could logically serve as the base of another system, competitive with that of the Pennsylvania. With this in mind, upon cessation of the Pennsylvania studies, I approached the presidents of the Chesapeake & Ohio and the Baltimore & Ohio and suggested to them that we consider the feasibility of merger or some joint arrangement.

"This combination of railroads, in my judgment, would not only be to the mutual advantage of the three carriers and their owners, but would contribute substantially to the establishment of a sound transportation system in the East. . . .

"We are continuing our studies with the Chesapeake & Ohio and the Baltimore & Ohio with the idea of joining them in a mutually satisfactory arrangement, which will assure our continued participation in the competitive structure of the eastern railroads."

Watching Washington *with Walter Taft*

• **FEDERAL AID FOR COMMUTERS** could be the outcome of hearings held before the Senate Housing subcommittee last week. Three days of hearings, beginning May 23, were devoted entirely to the mass transportation bill S.3278, introduced in the Senate by Senator Harrison Williams of New Jersey and a group of other legislators. Similar legislation has been introduced in the House of Representatives.

THE BILL WOULD AUTHORIZE the use of urban planning grants to encourage comprehensive transportation and other urban planning. It would also provide low cost loans of up to $100,000,000 to public agencies to help buy commuter equipment and integrate urban transportation. Both the ICC and the Housing and Home Finance Agency support the purposes of this bill, according to Senator Williams.

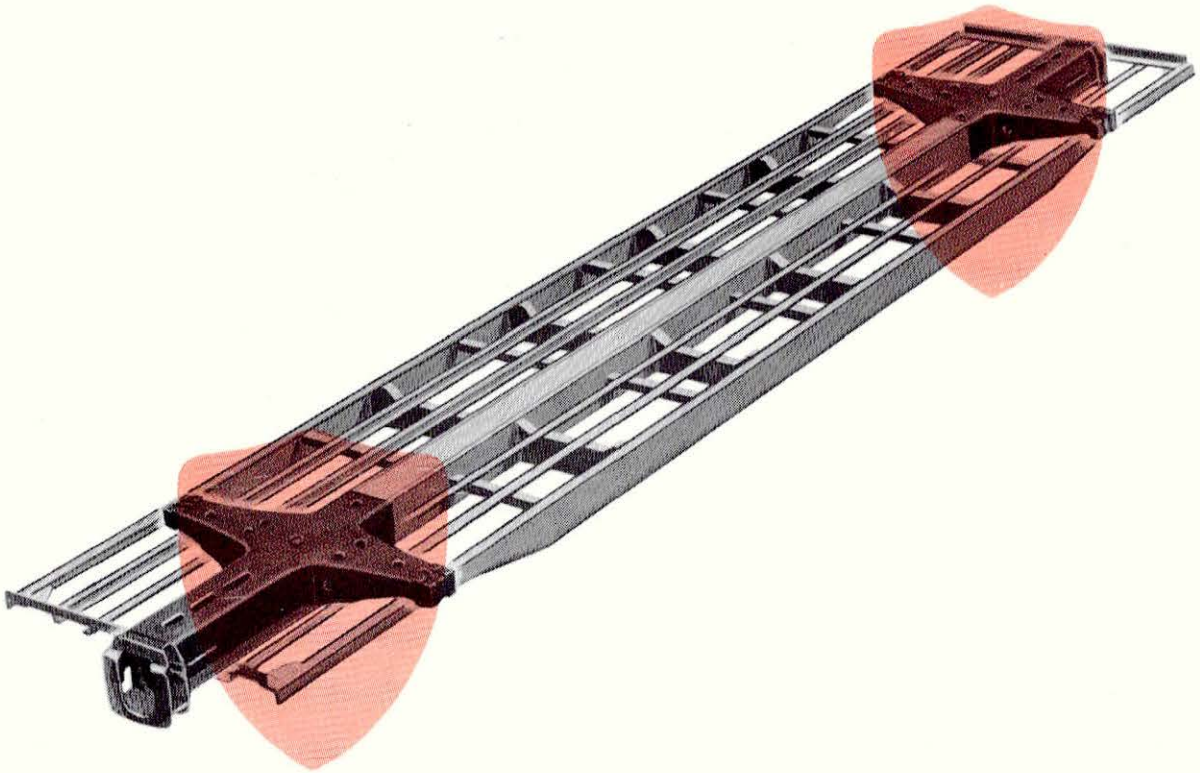
GOVERNMENT OFFICIALS AND TRANSPORTATION EXPERTS testified in favor of the proposed legislation. Included among the witnesses were George Alpert, president of the New Haven, and James Symes, chairman of the Pennsylvania. Also appearing were the governors of Massachusetts and New Jersey, and the mayors of Philadelphia, New York, St. Louis, East Orange, N. J., and Cleveland.

CHANCES OF PASSAGE are considered "the best" of any legislation along these lines that has been recently conceived.

• **WHAT'S WRONG WITH LOW PRICES?** That's the question that railroad men will seek to have answered in hearings beginning May 31 before the Merchant Marine and Fisheries subcommittee of the Senate Commerce Committee. They will be replying to charges made by water carriers and truck lines in February and March, when the latter singled out the rate issue at hearings on the broader subject of problems of coastwise and intercoastal water carriers.

THE ARGUMENT is over Section 15a(3) of the Interstate Commerce Act, adopted in the Transportation Act of 1958, which opponents feel enables railroads to hurt competitors by reducing rates on services directly parallel to those of other carriers. In briefest form, according to the AAR, the railroad position with respect to rate competition is that "the carrier with the lowest costs should be able to quote the lowest prices."

• **MEANWHILE,** Senator Yarborough of Texas has introduced a bill into the Senate (S.3578) to amend parts I and III of the Interstate Commerce Act in order to make unlawful "certain discriminatory rates, charges, and practices." This bill would require a common carrier petitioning the ICC for a lower rate in one geographic area to make available equal rate reductions over its whole system, when the requested rate is lower than necessary to meet competition from other forms of transportation.



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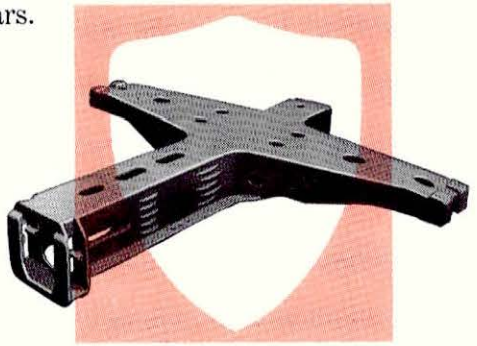

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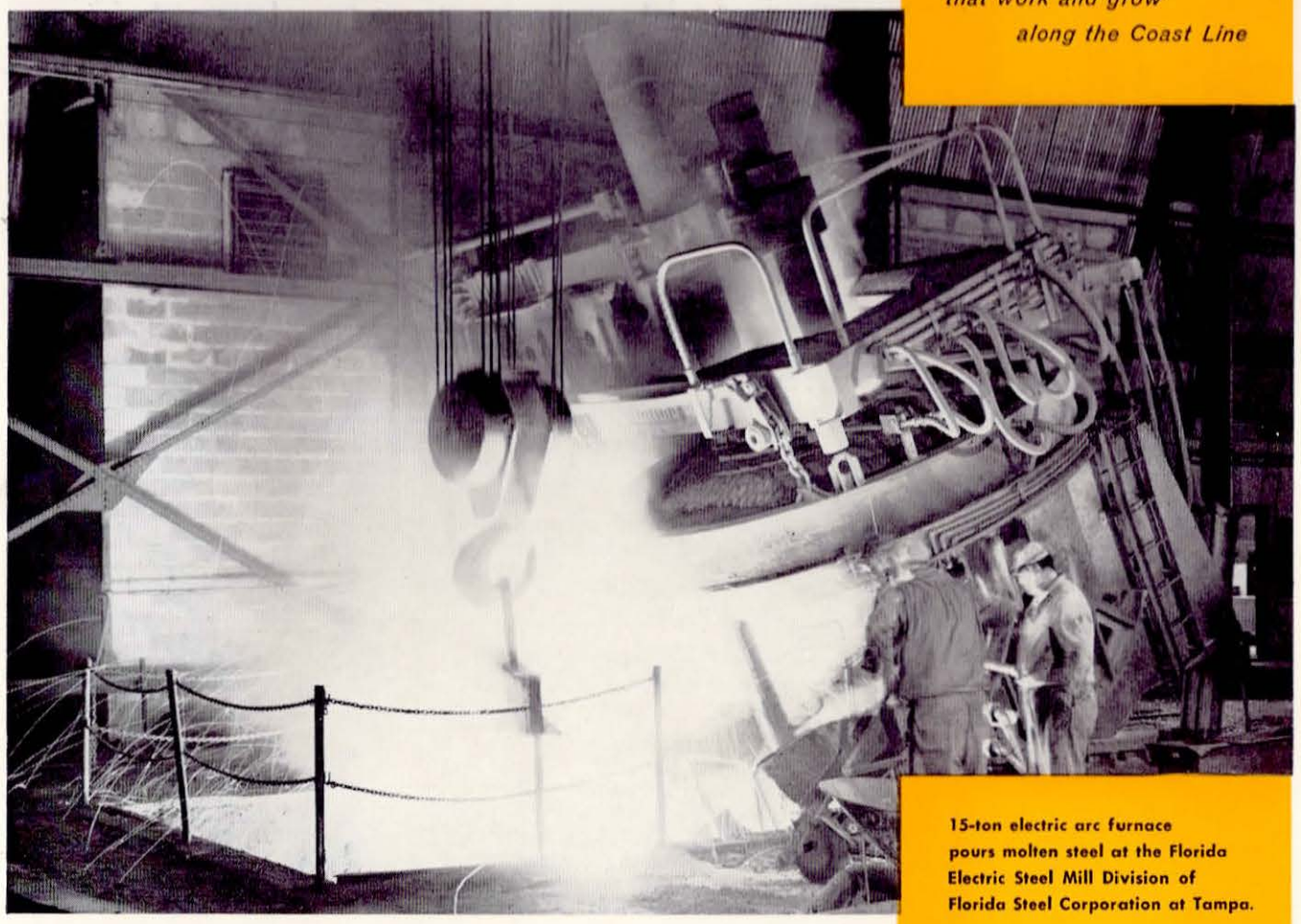
. . . where railroad progress is cast in steel

MEMBER

Shippers Along the Coast Line

One of a series spotlighting the companies that work and grow along the Coast Line



15-ton electric arc furnace pours molten steel at the Florida Electric Steel Mill Division of Florida Steel Corporation at Tampa.

First Steel Mill for Florida!

Capstone to an era of steady industrial growth in Florida! It's Florida Steel Corporation's Tampa mill — the state's first and only steel-producing plant.

The mill is the brainchild of a group of old, established metal fabricators who merged in 1957 to form Florida Steel and build an on-the-spot producer to help meet the state's growing demand for steel. The company maintains engineering, fabricating and warehousing facilities in major Florida and other southeastern cities and can provide products for every construction need from structural beams to ornamental grillwork. The Tampa mill itself has been in operation little more than a year but already has an annual capacity of 60,000 ingot tons—all produced from scrap steel (about 81 railroad carloads a month) collected in Florida.

Keeping the mill supplied with scrap and other steel-making ingredients and maintaining an even distribution of its output requires dependable, coordinated transportation services. Coast Line offers just such services to shippers regardless of their size, raw material requirements, or quantity and type products shipped. Try us next time you plan a shipment of any kind. We think you'll find Coast Line has exactly what you want in freight services.

"Thanks for using Coast Line"

ATLANTIC COAST LINE RAILROAD

Air Freight Seen Sure to Grow

Proposition

Transportation of freight by air is expected to reach three or four times its present volume by 1965; to approach 30 billion ton-miles and revenues of $4 billion by 1975. Thus, air freight appears to be a potentially serious competitor of surface transportation.

Questions

(1) Considering the products and distribution pattern of your company (or, if you are an association traffic manager, of your member companies) are you (or they) possible users of air freight?

Yes	72
No	4
On a limited basis, or under special circumstances	5

(2) Have you (or they) actually used it?

Yes	76
No	0
To meet emergencies, or under other special circumstances	5

(3) If there were no air freight, what form of transport would you (or they) have used for air shipments?

Truck	63
Rail	14
Other	56
Rail Express	25
Parcel post	4
Bus express	3
Freight forwarders	3
Air express	1
Unspecified	20

(4) Do you think you (or they) will use air freight in future?

More than now?	56
More than, or same as, now?	2
Same as now?	20
Less than now?	0

[Two additional Poll questions, asking for shippers' opinions about the advantages and disadvantages of air freight, will be surveyed in the June 27 issue of Railway Age.]

Shippers obviously foresee a bright future for air freight.

But on the basis of experience to date, they apparently expect air freight's impact on surface transport to be far more severe on trucks than on railroads—though it will probably hit hard at the latters' express business.

Shippers' views as to the advantages and disadvantages of air freight, also covered in the same Poll which produced the foregoing results, will be summarized in the next Freight Traffic Issue, June 27.

The Poll itself was an outgrowth of an article published in Railway Age last January 4. This described equipment and handling methods being developed for air freight service; summarized predictions as to its future growth; and cited examples of how some manufacturers are using it.

Poll inquiries were limited to industrial or association traffic managers whose companies, or members, could be considered as at least potential users of air freight. While this limitation may, admittedly, have tended to weight the results to some degree in favor of air-borne transport, the results would have been distorted also by querying shippers of such heavy, low-rated, surface-bound commodities as coal or ore.

It should be noted, moreover, that questionnaires were sent to, and replies received from, many spokesmen for "heavy" industry, e.g., chemicals, machinery, etc. On balance, therefore, it is believed the results are fairly representative of over-all shipper opinion.

Question No. 4, as Poll replies turned out, probably assumes the greatest over-all significance. As the tabulated replies clearly show (left), nearly three-quarters of all respondents expect to use air freight more in the future than they do now. One-quarter expect to use it about as much. None expect to use it less. Some of the reasons for this feeling are explained in comments quoted below.

Questions 1 *and* 2 (asked primarily to establish the experience background of Poll respondents) produced remarkable unanimity of opinion, and also a minor paradox. While all 81 respondents said they had used air freight at least under some circumstances, four do not consider themselves as "possible" users on any regular basis.

The seeming paradox is easily explained. "Anything may move by air in an emergency," says O. A. DeCroce, general traffic manager, Armstrong Cork Co., Lancaster, Pa., but "day-in, day-out use of air freight is limited to commercial articles of more than ordinary value . . . It is difficult to visualize a heavy, consistent movement of such commodities as . . . linoleum."

F. J. Fruechtemeyer, traffic manager of Cincinnati's Andrew Jergens Co., takes the same view. "We have used air transportation only on rush shipments to branch plants and sales personnel. Because of the costs . . . I cannot see any particular expansion in its use for movement of our type of consumer products."

Question No. 3, with its multiple answers, indicates a clear feeling that development of air freight will affect virtually all kinds of land transport, but is likely to hit motor carriers hardest. "Trucks built a thriving business by taking high-priced articles from the railroads through their efficiency in speed and less packaging," says R. T. Smith, director of transportation, Davison Chemical Co. division of W. R. Grace & Co., Baltimore, in the only specifically applicable comment. "Now," he adds, "air lines are taking the same type of business away from trucks."

Rail express, too, may be adversely affected by expansion of air cargo, but rail freight, shippers seem to feel, may escape rather lightly. It was mentioned —as a possible casualty—only about one-fifth as frequently as trucks; about half as often as express; and, over-all, about one time in 10. That, most railroaders will doubtless agree, is encouraging, but still far too high to permit any feeling of complacency.

Several men pointed out that air freight is already competing successfully with steamships on movements to other countries, to the Caribbean area, and to Alaska and Hawaii. One of these was Mr. Smith; another was J. D. Paul, secretary-manager of the Seattle Traffic Association, who wrote: "Seattle, being the gateway to Alaska, is seeing an ever-increasing use of air freight in supplying the needs of the 49th state. Fresh meats, fruits, vegetables and other perishables once constituted the great bulk of air freight to Alaska, but today all types of commodities are moving by air in substantial volume. The same is true of shipments to and from the Orient, and domestically."

Reverting to Question No. 4, nearly all comments indicated increased future use of air freight. Some were enthusiastic about its prospects. Many of them, in their supporting reasons, give pretty clear indication of what shippers want in transportation, so they must be considered as instructive (if not entirely pleasant) reading for surface carrier personnel.

"Future of air transportation," thinks D. F. Hensley, traffic manager,

(*Continued on page 66*)

NEW Column wear plate with high weldability

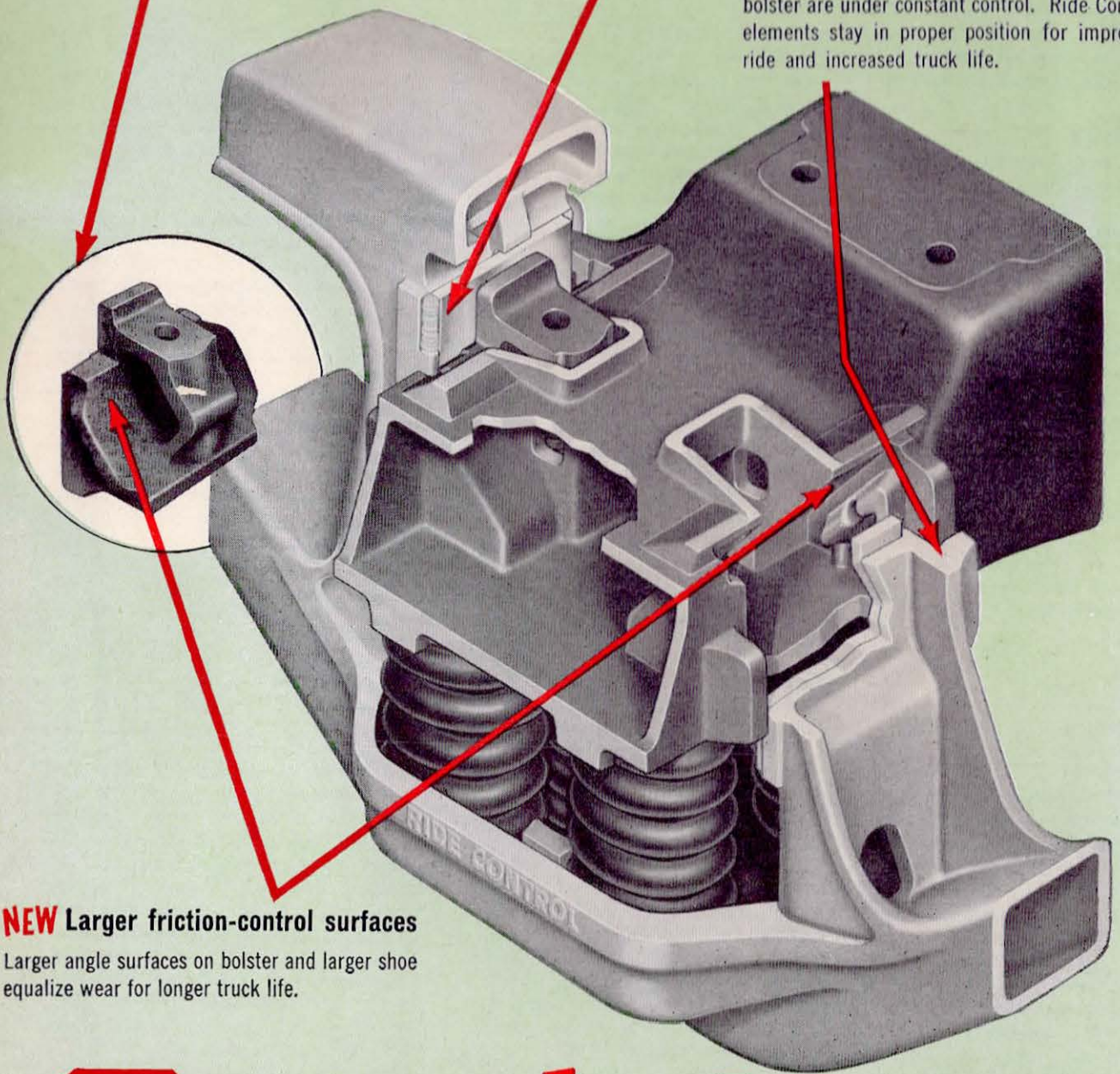
Steel composition and heat treatment developed for wear resistance, yet the plate is readily weldable.

NEW Wing shoe is shell-molded

Larger areas—plus ASF's precision casting process that results in smoother surfaces and closer tolerances. New longer-wearing steel, too.

NEW Superior bolster control

Longitudinal, lateral and rotary movement of bolster are under constant control. Ride Control elements stay in proper position for improved ride and increased truck life.



NEW Larger friction-control surfaces

Larger angle surfaces on bolster and larger shoe equalize wear for longer truck life.

ASF Ride Control NEW Truck

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P R I
MEMBER

AMERICAN STEEL FOUNDRIES

Prudential Plaza, Chicago 1, Illinois

Canadian Manufacturer and Licensee: International Equipment Co., Ltd., Montreal 1, Quebec
Other Foreign Sales: American Steel Foundries, International, S.A., Chicago

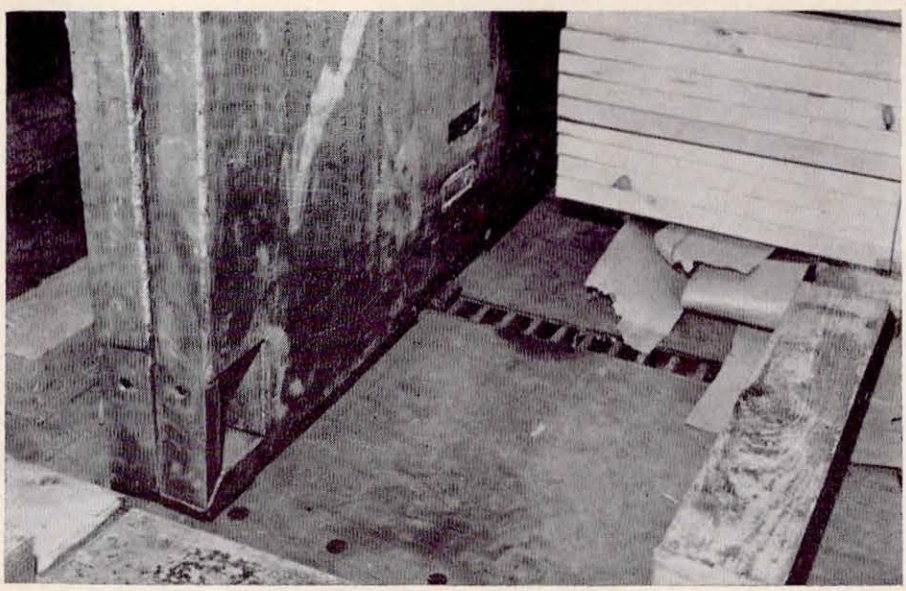
New ASF Ride Control® Truck gives you larger bearing areas, better shoe and bolster action. Result: Longer truck life.

Based on 20 years' experience with Ride Control Trucks and continuing research, American Steel Foundries has designed the new ASF Ride Control Truck to answer your needs for a lasting smooth ride. Bearing areas have been increased, critical wear points now last longer than ever. Shoe and bolster interaction has been improved, bolster shift minimized. You get balanced wear with lower maintenance costs because of longer life of the component truck parts. The new ASF Ride Control Truck has been tested and proved in action on the ASF Service Laboratory Test Train, and is ready to give you even better service.

All pictures courtesy Georgia-Pacific Corporation.

EXPERIMENTAL LUMBER CAR has overhead "garage-type" doors that open up entire side for quick fork-lift loading and unloading. Doors are operated by wheel at end of car. Mechanism is controlled by a power steering unit.

G-P Likes 'Garage-Door' Car



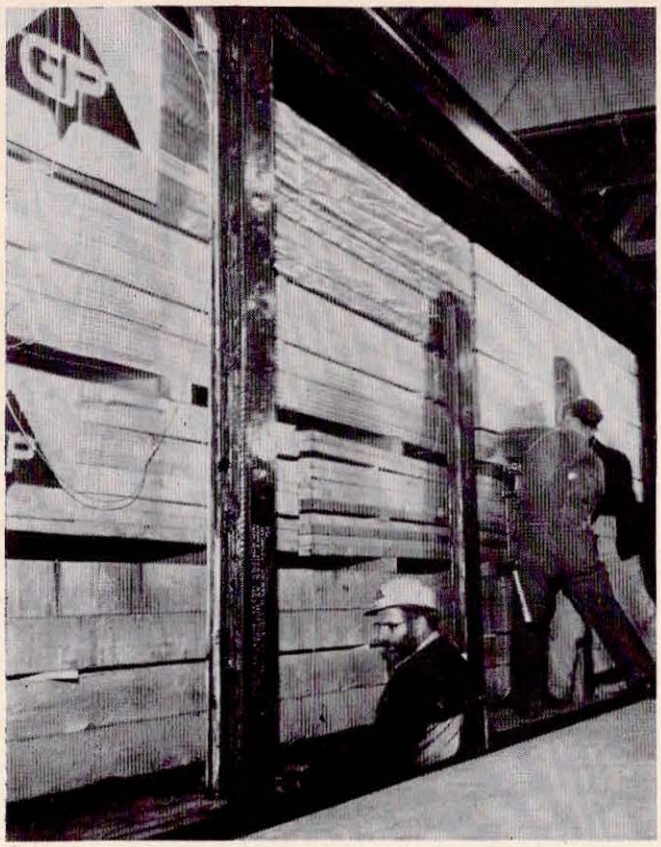
INTERIOR BULKHEADS designed to hold loads in place can be moved manually to any position in the car. They are held in position by a locking device located in the car floor.

That "it fulfills a long-felt need" was the general reaction of some 75 representatives of lumber manufacturers and railroads to the first West Coast demonstration—by Georgia-Pacific Corporation—of the Southern's new "garage-door" lumber car.

"It's far more efficient in loading and unloading than any other car we've seen yet," Georgia-Pacific's general traffic manager, W. C. Cole, told Railway Age.

The car, already extensively tested with Southern pine lumber in the South, got its initial West Coast trial when Georgia-Pacific loaded it with mixed Douglas fir lumber from Springfield, Ore., to Washington, D.C. Details of the load, which aggregated 37,500 board feet, and weighed 84,100 lb, are given in the accompanying table.

The car arrived at destination, Mr. Cole said, "in excellent condition. There was some slight shifting in one section, because we weren't able to load it quite as we wanted to, but no damage."



SPECIAL STEEL STRAPS—here being tightened by members of Georgia-Pacific's loading crew—are used to cinch down the car's lumber load.

FINAL INSPECTION is made just before overhead side doors are pulled down. Removable vertical metal center post and side stakes prevent shifting of load against doors during transit.

The trial load was deliberately made up of many different sizes, lengths and grades of lumber to test the car's versatility. Although the longest single piece in the Springfield-Washington shipment was 30 ft, Georgia-Pacific officials report that the car can take timbers up to 40 ft long when the two movable interior bulkheads are set at the car ends, maximum distance apart.

Loads, Unloads Fast

Loading time was one hour, 10 minutes—a little over one-sixth of the six hours normally required to load a regular car of comparable capacity with mixed lumber.

The car itself (pictured in Railway Age, Feb. 22, p. 34) was developed by the Southern to permit fork-lift loading and unloading of lumber.

Each side is composed of two hinged-panel garage-type doors which can be rolled up under the roof by turning a wheel located on the end of the car.

Load limit is 70 tons; inside width between stake pockets is 9¼ ft; height, 9 ft, 7 in.; and length 42½ ft, subdivided by two load-retaining aluminum bulkheads which can be fixed at any location in the car.

Other wide-door lumber cars "are now on the drawing boards," according to a railroad spokesman who attended the demonstration.

HERE'S WHAT Southern Lumber Car No. 121273 Carried in its First West Coast Test

Unseasoned West Coast Douglas Fir, Rough Const.

SIZE	PIECES	LENGTH
6 X 10	8	30 FT
6 X 12	4	30 FT

Unseasoned West Coast Douglas Fir

SIZE	UNITS	PIECES	LENGTH
2 x 4	8	2,016	8 ft
2 x 6	1	168	14 ft
	1	168	16 ft
	½	66	18 ft
	1	156	22 ft
2 x 8	1	112	14 ft
	1	112	16 ft
	1	104	22 ft
2 x 12	1½	117	12 ft

Kiln Dried West Coast Douglas Fir "C" and Better Flooring

1 x 4 (6 pieces per bundle)—4 bundles/4 ft; 3/6 ft; 3/12 ft; 5/16 ft; 24/18 ft

Kiln Dried West Coast Douglas Fir "C" and Better Siding

1 x 6 (4 pieces per bundle)—4 bundles/8 ft; 4/10 ft; 8/16 ft; 2/18 ft.

Kiln Dried West Coast Douglas Fir "C" and Better Finish

1 x 4 (6 pieces per bundle)—2 bundles/5 ft; 1/6 ft; 2/7 ft; 3/10 ft; 2/12 ft; 3/16 ft; 2/18 ft

1 x 6 (4 pieces per bundle)—4 bundles/16 ft

1 x 8 (3 pieces per bundle)—2 bundles/18 ft

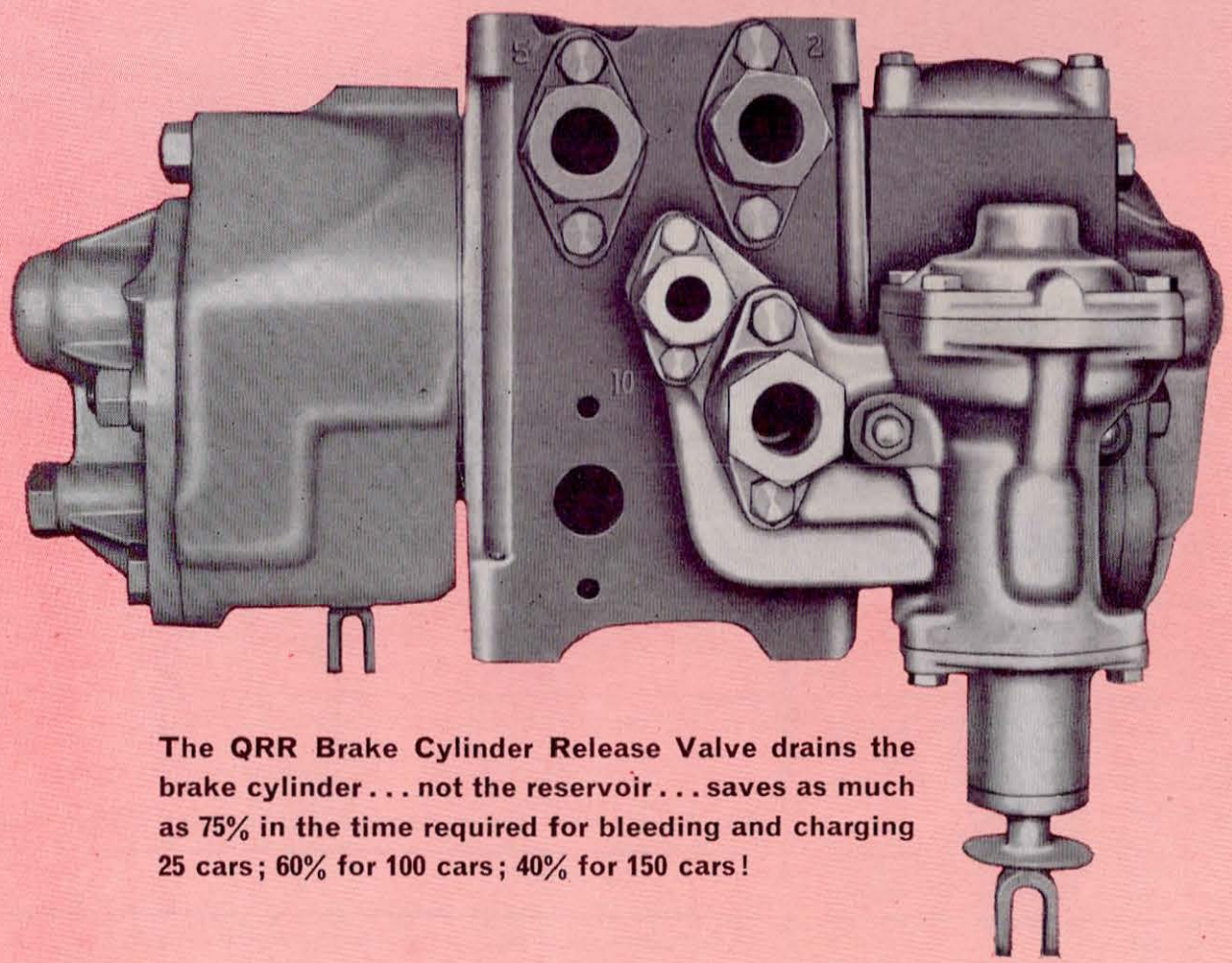
1 x 12 (2 pieces per bundle)—1 bundle/5 ft; 2/6 ft; 2/10 ft; 1/12 ft; 3/16 ft

2 x 4 (3 pieces per bundle)—3 bundles/16 ft; 6/18 ft

2 x 6 (2 pieces per bundle)—3 bundles/8 ft; 1/10 ft; 3/16 ft; 1/18 ft

to expedite the handling of freight trains

Install



The QRR Brake Cylinder Release Valve drains the brake cylinder . . . not the reservoir . . . saves as much as 75% in the time required for bleeding and charging 25 cars; 60% for 100 cars; 40% for 150 cars!

through yards . . .

Westinghouse QRR Brake Cylinder Release Valves now

—and start saving time and money immediately!

The more cars equipped with QRR valves, the greater the benefits . . . to everybody concerned with the movement of cars through yards. QRR Brake Cylinder Release Valves are real time savers in any switching operation around classification yards because they drain only the brake cylinder simply by tripping the handle. Reservoir air is retained and time formerly needed to drain reservoirs is saved. This makes it possible to bleed and recharge 100 cars in less than half the time it takes the old way.

Westinghouse Air Brake Company can fill your orders for QRR's now!

We manufacture QRR Brake Cylinder Release Valves to the usual Westinghouse high standard of quality . . . according to A.R.R. requirements.

Adapter Kit with QRR Valve, adapter filling piece and mounting details, is supplied for easy application to AB Valves in service (shown on photo). Complete details are covered in Service Bulletin 108-7. For new AB equipment the pipe bracket is arranged for direct mounting of the QRR Valve. Write or phone for additional information.

Westinghouse Air Brake
COMPANY
AIR BRAKE DIVISION WILMERDING, PENNA.

Why Spencer Kellogg Uses Rails

Why does Spencer Kellogg and Sons use railroads for 95% of its annual transportation needs—more than $12 million a year? Why would it, if it could, use rails 100%?

There are, says Traffic Manager J. Harold Wright, four basic reasons:

- Availability of economical, claim-cutting special equipment;
- Ability to handle bulk and volume movements measured in terms of tons—or in thousands of tons;
- Adherence to production-line schedules; and
- Milling-in-transit rates.

Spencer Kellogg's function is to process basic raw materials into products which become in turn the raw or semi-finished materials for other industries. In addition to animal and poultry feeds produced by its two feed divisions, its only other consumer product is linseed oil, in cans of from one pint to five gallons. But its industrial customers read like a social register of American business.

Spencer Kellogg's average shipment of linseed or soybean oil, for example, is 30 tons; its average shipment of oil-seed meal runs from 45 to 50 tons. What's more, nearly all those shipments have to arrive on a precise schedule, to tie in closely with the receiver's production processes.

It's because railroads are geared to handle shipments of that size on a national basis, and able to maintain announced schedules for their delivery, that they have a built-in "inherent advantage" for a company like Spencer Kellogg.

Even more important, however, is the availability of special railroad equipment suited to movement of Spencer Kellogg products. The company uses three types—tank cars, covered hopper cars, and device-equipped box cars. It likes them all.

Tank cars—more than 400 of them, varying in capacity from 4,000 to 12,500 gallons—are leased and operated under Spencer Kellogg's direct control.

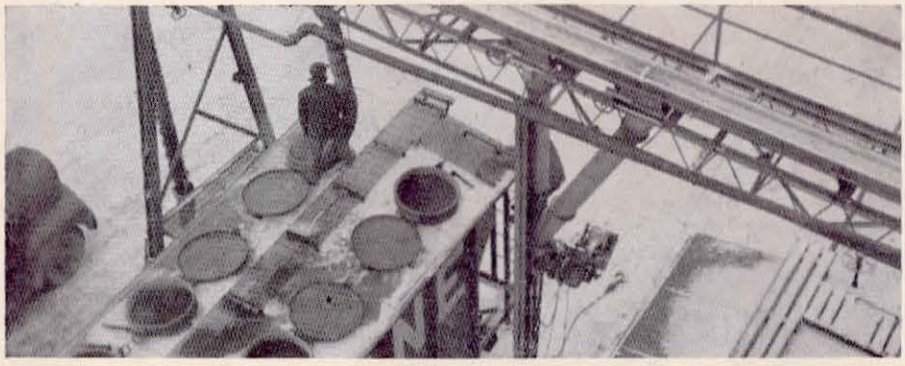
Covered hopper cars are not leased but are obtained directly from the railroads—principally, just now, from the New York Central, Pennsylvania, Lehigh Valley, Nickel Plate, Wabash, Illinois Central, Burlington, Chicago Great Western, Grand Trunk and Soo Line.

Spencer Kellogg, at any given time, has a fairly large number of covered hoppers in its service, and likes them tremendously. Experience has proven them more economical to load and unload. These covered hopper cars save the cost of buying and filling bags, and they have cut claims "by 100%, i.e., to zero." Spencer Kellogg is becoming increasingly interested in big covered hopper cars, holding up to 3,500 cu ft, because of rail rate adjustments based on 40- and 50-ton loads.

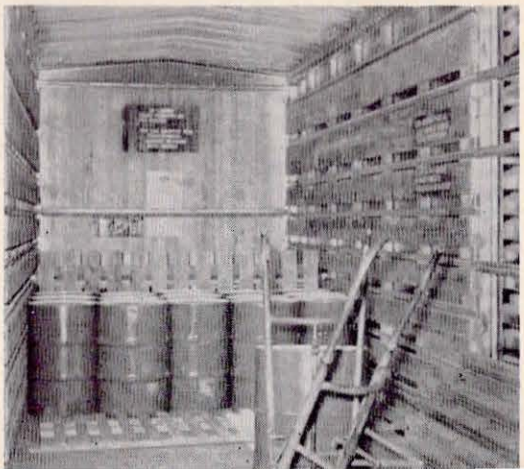
"As a matter of competitive necessity," Mr. Wright says, "the day of the covered hopper is here. For our purposes, they are a far better car than the ordinary railroad box car. The only trouble is [and this is one of the few points on which he is critical of the carriers] there aren't enough covered hoppers to go around because of the variety of commodities being shipped in them. There is a real need for more of them. I hope new orders will relieve this situation."

The third type of special equipment which Spencer Kellogg uses and likes are box cars equipped with damage-reducing devices. While it neither owns nor leases any such cars directly, it insists on receiving them from railroads—especially western roads—and uses them exclusively for box-car movements of packaged products, such as oil in cans or drums. Most shipments of that type are mixed as to product or container size, or both, and many are made on a stop-off basis, so good protection of carefully patterned loads is essential if transit damage is to be avoided.

Insistence on receipt of such cars, and careful study of how best to use them, has paid off handsomely. It has reduced Spencer Kellogg's claim bill on packaged shipments by "at least 50%," and enabled it to hold "at least one customer" whom it would otherwise have lost. Most packaged shipments originate at Minneapolis (on the Chicago Great Western). Like other Spencer Kellogg products, they go all over the country.



▲ **AVAILABILITY** of bulk cars for bulk shipments is a big reason for Spencer-Kellogg's intensive use of rail transport. . . .

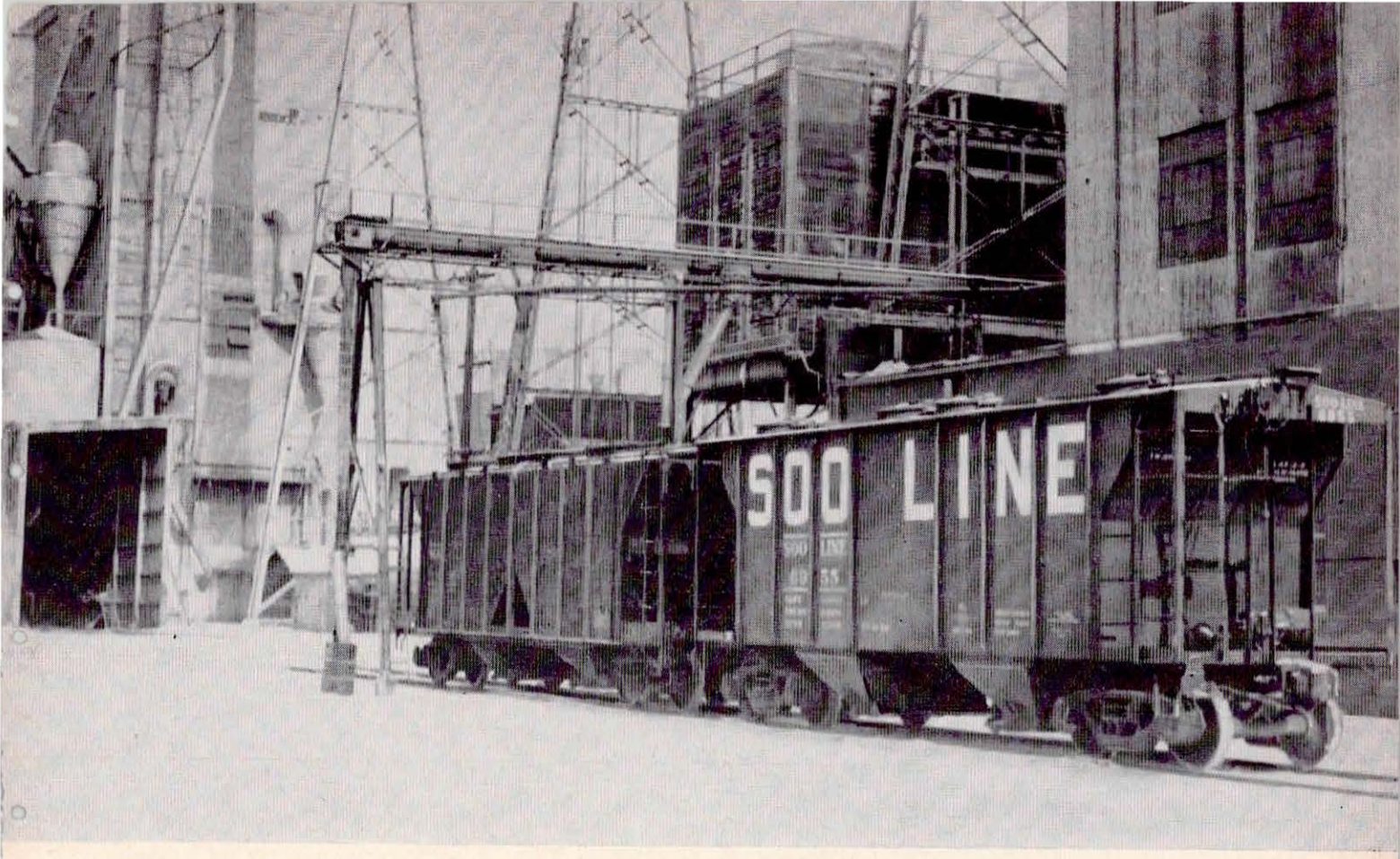


▶ **BUT IT ALSO** uses device-equipped box cars for damage-free shipment of mixed loads of its packaged products.

Grade A Cars a 'Must'

Emphasis on tank, covered hopper and device cars doesn't mean, however, that Spencer Kellogg can get along without conventional box cars. It uses them extensively; some of its mills ship as many as 30 or 40 a day, 150 to 200 in a working week. A few of these are used for bagged shipments, but the vast majority are loaded in bulk, which means that top-notch, Grade A cars are "an absolute necessity." It's not too hard, in Spencer Kellogg's experience, to get such cars at Minneapolis, where consistently heavy grain shipments keep them in generally good supply, but getting enough of them at other points can be a real problem.

It's a problem that is complicated both by geographical and seasonal difficulties. Geographically, the industry of which Spencer Kellogg is a part is highly concentrated; all major companies have processing plants at the same



FREIGHT CARS, bulk-loaded, precisely-scheduled, are a vital link in Spencer Kellogg's distribution system.

points. Seasonally, the harvest of soybeans, which are one of the industry's major raw materials, reaches a peak in October and November. Then, as Mr. Wright puts it, "everybody is howling for the same kind of cars at the same places at the same time."

Railroads, he concedes, "are trying hard, but the over-all situation isn't improving fast enough. Many railroads participate in our business because they have proved their ability to supply us with cars."

Outbound box car shipments in bulk are mechanically loaded. The meal is blown in, with doorways protected by Signode steel-strap reinforced paper grain doors. All plants use inside hopper scale loading, to be sure of giving customers specified weight.

Inbound, Spencer Kellogg receives most of its major raw materials by rail, in box cars, in bulk. Soybeans are received principally at Bellevue, Decatur and Des Moines; flaxseed at Minneapolis, and soybeans, flaxseed and cottonseed at Long Beach, Calif. Inbound cars have to be good, though not quite as good as those for outbound loads. So, except in periods of national car shortage, the company has no particular problem in getting equipment for incoming raw materials.

The double operation of rail receipt and rail shipment gives the company the advantage, generally speaking, of milling-in-transit rates, which represent the fourth (though perhaps the most important) reason for its predominant use of rail transportation.

Because it is primarily a shipper of large-volume bulk loads, Spencer Kellogg has relatively little chance to use piggyback. Its small shipments are largely confined to local distribution within areas served by the warehouses which it maintains by ownership, lease or agent in every major city, and to which it ships originally in carload lots.

It has, however, used some Plan II (all-rail) TOFC service, particularly out of Chicago and Minneapolis, and to some extent elsewhere. It finds the operation "generally very satisfactory, especially from the standpoint of service and claims. In some cases, piggyback isn't competitive with trucks timewise, usually because of some geographical disadvantage, such as a circuitous rail route. But in some other cases, it's faster than truck."

Special Cars Cut Claims

On claims, Spencer Kellogg's high preponderance of bulk shipments, plus its heavy reliance on special equipment, give it an enviably favorable picture. "Rail claims," the company says simply, "are not a major factor with us. We have none worth mentioning on oil or bulk meal, and only a few on our box car shipments of packaged goods."

To handle its nationwide movement of many different grades of many different commodities, Spencer Kellogg maintains a traffic force at its Buffalo headquarters. Additionally, there is a full-time traffic representative at plants at Bellevue, Decatur, Ill., Minneapolis, Des Moines and Long Beach; and a full-time traffic manager and staff for the company's two mixed feed divisions. Traffic manager for the Beacon Milling Co. division is R. W. Schwartz, at Cayuga, N.Y. His counterpart for the Professional Feeds division is R. C. Hardin, at Kansas City. In line with the company's "high decentralization" policy with respect to traffic, both mill and division people are given a large measure of autonomy, to do as much as possible of their own day-to-day routine work. They report to Buffalo, however, on rate and policy matters.

The Buffalo traffic office concentrates primarily on rates, research and service, both for the mills and the divisions and for the company's other departments and executive officers. Its specific functions are to:

- Cooperate with company executives and with other company departments, particularly sales, raw materials, purchasing and accounting.
- Handle all rate negotiations, infor-

(*Continued on following page*)

Railroads Need 'Modern' Rate-Making

"Railroads need to recognize the need for 'modern-day' rate-making. Rate proposals come into us almost daily from all major rate associations, but the time-lag between the initiation of such a proposal and final publication of the rate resulting therefrom is altogether too long. As traffic men, we know some of the problems involved, but it's hard to explain to our customers why decisions take up to three months or even longer. Some proposals can be held up for as much as a year. It comes down to the fact that, so far as rates are concerned, railroads are just too slow in meeting competition."

Except for some concern over the occasionally inadequate supply of covered hopper cars and of Grade A box cars, that comment on rate-making is just about the only criticism of railroads voiced to Railway Age by J. Harold Wright, traffic manager of Spencer Kellogg and Sons, Inc.

Coming from him, it's an important criticism, because he directs traffic for a company which distributes a variety of products nationwide; which pays out about 10% of its gross sales for transportation; and uses the railroads for 95% of that. On the basis of total sales, in 1959, of $130 million, that pegs Spencer Kellogg's own freight bill at around $13 million; its rail freight alone at around $12-1/3 million. Actually, Mr. Wright suggests both figures would be even higher, if account were taken of freight received prepaid and shipped collect.

The company's business breaks down into three major categories. It produces and refines soybean, linseed, castor, cottonseed and other vegetable oils used by makers of nutritional or industrial products. It manufactures their co-products, such as soybean, linseed and cottonseed meals, livestock feeds, soybean flour and other products for foodstuff and industrial uses. And it creates special products, such as drying oils, dehydrated oils, polyurethane resins, water soluble vegetable oils and chemically modified oils.

Its numerous products go into such diverse end products as shortening, margarine and salad oils; paints and varnishes; linoleum; soap; caulking compounds; pharmaceuticals; animal and pet foods; and many others. Still other uses for present products, as well as entirely new products, are expected to be developed by the company's modern research laboratory at Buffalo. Their development will bring to Mr. Wright and his traffic staff challenging new problems of equipment, classification, rates and transportation handling methods.

J. Harold Wright

Operationally, the company is organized in three divisions. Spencer Kellogg and Sons, Inc., with headquarters and research center in Buffalo, maintains sales offices and agencies in 33 major U.S. and Canadian cities. It has plants at Bellevue, Ohio; Chicago and Decatur, Ill.; Des Moines; Edgewater, N.J.; Minneapolis; and Long Beach and El Centro, Calif. Beacon Milling Co. division has administrative offices and two research farms at Cayuga, N.Y.; retail stores at 11 rural centers in the east; and plants at Cayuga and Eastport, N.Y.; Laurel, Del.; York, Pa.; and Broadway, Va. The recently acquired Professional Feeds division, with headquarters at Kansas City, Mo., operates plants or other installations at Kansas City, Joplin, Liberty and Hannibal, Mo.; East St. Louis, Ill.; Evansville, Ind.; Des Moines, Iowa; Horace and Oxford, Kan.; and Siloam Springs, Ark.; and a demonstration farm at Liberty, Mo.

The man who heads up traffic work for this complex organization has been with Spencer Kellogg since he was graduated from the University of Tennessee, with a major in transportation, in 1949. He has been traffic manager since 1953. He is a graduate of the College of Advanced Traffic; a registered ICC practitioner; a certified member of the American Society of Traffic & Transportation; and a member of the National Industrial Traffic League.

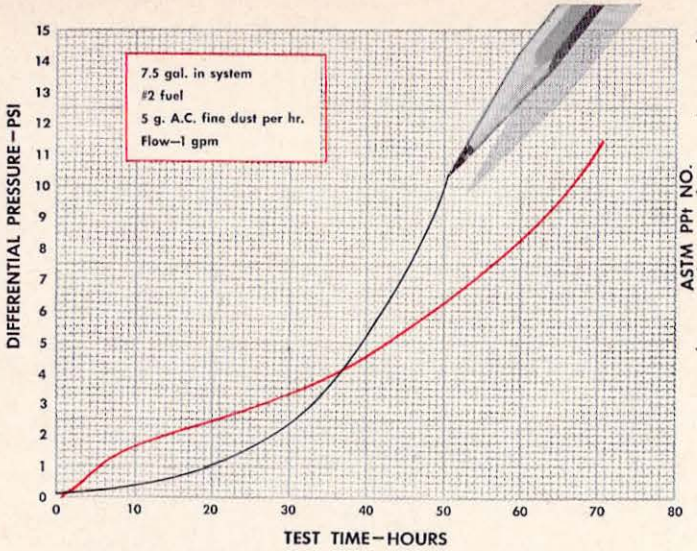
mation and servicing. This includes investigating rate proposals; representing the company before railroad rate committees and the Interstate Commerce Commission; disseminating information on rate changes to company salesmen; maintaining a file of over 1,600 tariffs; and, in general, acting as an intermediary between plant and division traffic people and the carriers.

- Direct operations of the company's fleet of leased tank cars.
- Control all routing of oil traffic in those cars. (Routing of meal shipments is handled by local traffic men because it ties in with transit billing.)
- Receive calls from local and off-line rail representatives in the Buffalo area.
- Process all claims for loss or damage. (Freight bills are pre-audited and paid at the local level—always, to avoid post-auditing, on the basis of what the company thinks the rate should be, whether that is higher or lower than the amount billed.)
- Arrange passenger reservations and household moves for company personnel.

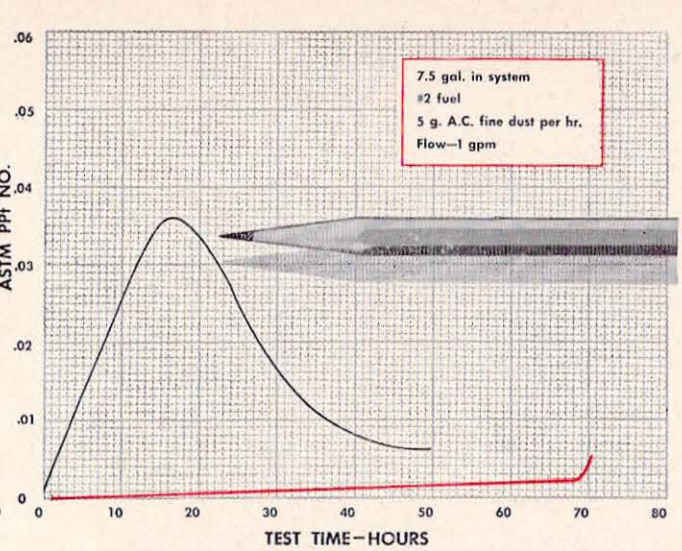
These Buffalo duties are all performed by six men, including Mr. Wright, his assistant and a transportation analyst. Mr. Wright says, "there are no specialists. Everybody is a jack-of-all-trades, able to do any job in the department." This is possible because all the department's higher personnel, both at Buffalo and elsewhere, have had the benefit of long experience in either carrier or industrial traffic work, or on both sides of the fence, and are well versed in rate matters.

One feature of special interest in Spencer Kellogg's Buffalo traffic office is a wall-mounted tank car control board. This contains a wooden block about 1½ in. square for each car in the company's fleet. The block representing each car carries the car number in black on one side; in red on the opposite side. When the car is under load, the block is placed on the board so the black number faces outward; when the car is empty, the block is turned so the red number shows. The position of each block on the board is changed as the car it represents is shipped and returned.

To help keep the board accurate and up to date, a prepaid return postcard is forwarded to the consignee along with notice of shipment for each car. The consignee enters on the card the dates the car is received and released and returns the card for Buffalo office use. The cards are then forwarded to the mills in order that traffic personnel is aware of inbound empties and can trace them if necessary.

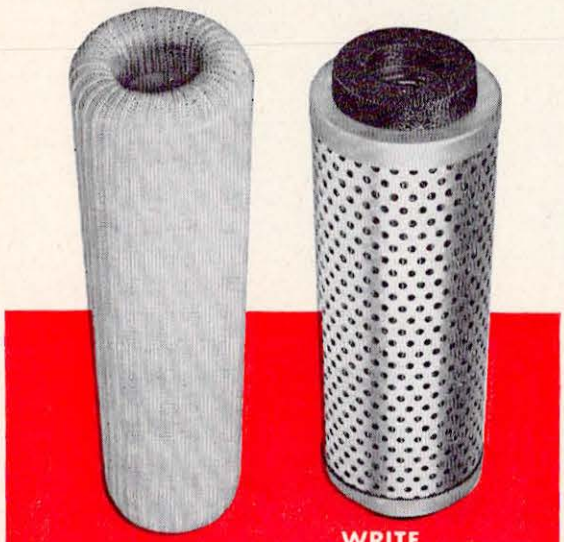


Showing comparative flow rate of Conventional Cotton (black line) and New WIX P-1 Porosite (red line) Second Stage Fuel Filters. With 10 psi the condemnation peak, note that the old style cartridge has a service life 16 hours less than that of the New WIX P-1 Cartridge.



This chart exposes the comparison of oil filtration efficiency. Note the unfavorable peak registered by the Standard depth-type Filtrant. Also note that the oil filtered by the WIX P-1 Filtrant never showed more than trace amounts of contamination over its longer life.

New Developments in Diesel Fuel Filtration Promise Improved Performance PLUS Economy



Shown above is the WIX Filter Prescription for trouble-free Diesel Fuel. At the left — WIXITE Primary Fuel Filter Cartridge. At the right — the New WIX P-1 Pleated Paper Second Stage Fuel Filter Cartridge whose outstanding performance is shown in the charts above.

WRITE FOR THIS

Diesel Fuel Filtration is a vital cost factor. Over $37,000,000 is the figure set as the avoidable annual cost of dirt in Railroad Diesel engines in 1956. That is the cost in wear and repair alone. It doesn't take into account the additional costs such as: down time of units; delays, disruption of schedules and related losses due to mechanical failures.

WIX Prescription Filtration is a positive, practical answer to this staggering cost factor. WIX research has developed Filter Cartridges for Primary and Second Stage Fuel Filtration that, combined, provide revolutionary results for many Railroads. WIX also offers dramatic new filtering efficiency for Diesel Lubrication. These advances are important to you . . . write for particulars today.

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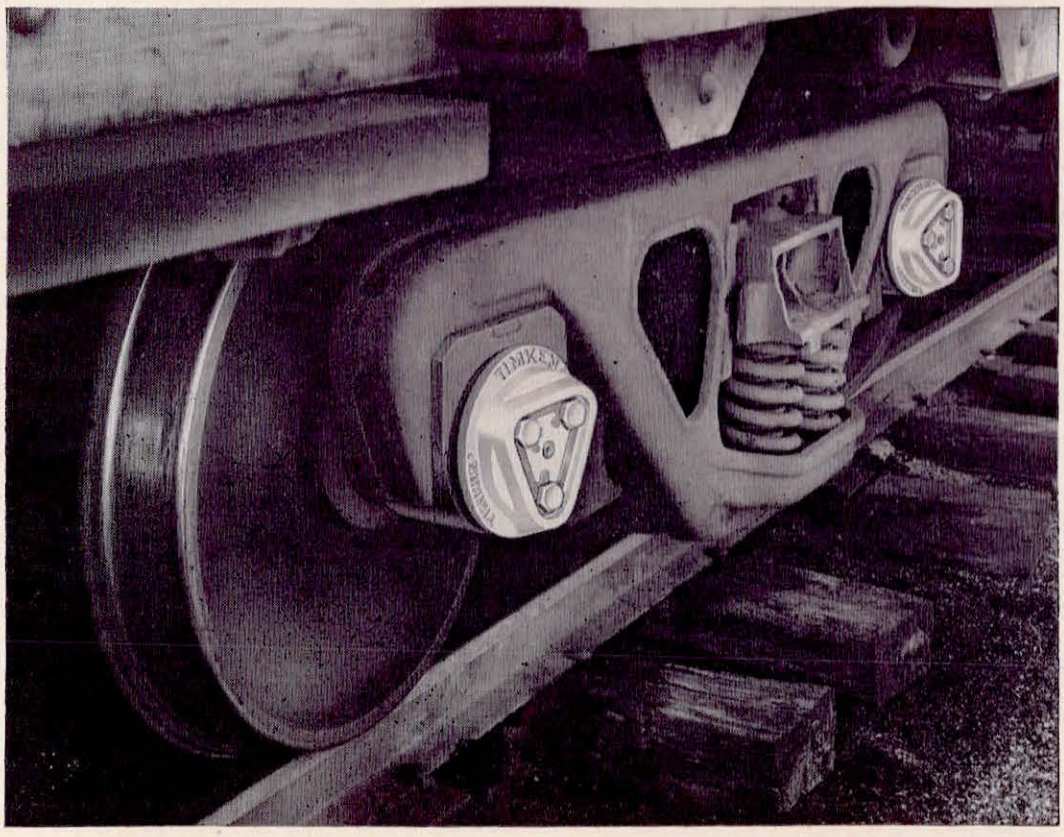

There is no substitute for PERFORMANCE

Timken® tapered roller bearings have been in continuous heavy-duty railroad service since 1930 when the "Four Aces" locomotive rolled over 100,000 miles on fourteen railroads in eighteen months.

For the past 30 years, Timken bearings have been performance-tested in heavy-duty railroad service: on locomotives, high-speed passenger cars and freight cars.

Performance is the payoff for this experience:

- In service Timken "AP" type heavy-duty tapered roller bearings have averaged over 214,000,000 car-miles per car set off.
- One railroad's heavily loaded cars have rolled over 500,000,000 miles on Timken bearings with only two overheated bearings.
- In high speed piggyback service, Timken bearings have rolled 168,000 miles in a year—rolled up almost a year's average freight car mileage in a month.
- And Timken bearings have rolled 288,000 miles, in actual test on a railroad, without addition of lubricant.

93 railroads and other freight car owners have well over 62,000 cars on Timken bearings in service or on order—almost 32,000 ordered in 1959 alone.

For all your freight cars—heavy duty and otherwise—why settle for less than best performance, most experience, the most service and the greatest return on your freight car investment. Timken Heavy Duty "AP" bearings are available for all standard axle sizes—including 7 x 14 Class G—to meet any railroading need. Let us show you what "Roller Freight" on Timken bearings can save you.

The Timken Roller Bearing Company, Canton 6, Ohio. Cable: "TIMROSCO".

See you at the 1960 Exposition, Railway Electrical and Mechanical Supply Association, San Francisco, Jack Tar Hotel, June 13-16, Booths 225-227.

This 'Co-op' Really Works

► **The Story at a Glance: In western Connecticut, a group of hardheaded Yankee traffic managers are staging a graphic demonstration of how shippers can help themselves to get better service and lower charges.**

Here's the story of what they're doing, and of how they're doing it, through the Charter Oak Shippers' Cooperative Association.

"So far as transportation costs are concerned, it has taken Connecticut manufacturers out of the ocean and put us back on shore."

That's one member's enthusiastic reaction to "Charco"—more formally, the Charter Oak Shippers' Cooperative Association.

"It's already saved my company enough to pay our dues for the next 20 years," says another.

"On Pacific Coast sales," adds a third, "it makes us roughly equal to competitors located as far west as Michigan."

In addition to helping themselves, these Connecticut shippers are giving more traffic to local Connecticut truckers and to the New Haven and other New England railroads.

The organization which is bringing these benefits to shippers and carriers alike was incorporated July 2, 1958, with the stated purposes of procuring for its members:

- More prompt, economical and efficient distribution for their merchandise or products; and
- Consolidation, transportation and distribution of merchandise on a non-profit cooperative basis at carload, truckload or other volume rates, or by owning and leasing transportation equipment on a non-profit cooperative basis.

Growth Has Been Steady

Beginning with nine members, Charter Oak has grown, in less than two years, to 40; may ultimately expand to 60 or 70.

"We're more interested in service and economy than in size, per se," says one spokesman. "We don't solicit new memberships. We're perfectly willing to tell any prospective member about our organization and our service, but do so on request only. We don't go after them, and won't. They have to come to us."

As that philosophy indicates, Charco is strictly a non-profit organization. Officers and directors are forbidden, by the by-laws, to receive any compensation in any form, except for "reasonable expenses incurred" and only if approved by the membership as a whole. None of them, to date, have requested any such expenses. The only paid employee is a management agent—and he is paid, not by fixed salary, but by contract.

Charco arranges for consolidation of shipments into full trailerloads and full carloads, and provides for its members the benefit of coordinated rail-truck service at carload rates even on LCL or LTL shipments. Charco, however, does not physically handle any freight. All physical handling is done by members' own forces, by truckers and by railroads.

It utilizes Connecticut ICC-certificated common carrier truckers to pick up freight from individual member's plants, in full or part trailer loads; to consolidate partial loads into full loads; and to transport loaded trailers to railroad terminals. The cooperative also uses other ICC-certificated common carrier truckers for delivery to ultimate consignees in destination areas. It pays published ICC rates to all these truckers. Origin truckers service each of the four western Connecticut areas in which Charco members are presently concentrated—Hartford-New Britain; New Haven-Waterbury; Torrington-Winsted; and Fairfield county.

Destination Service Extended

Destination service, originally limited to the Chicago area, has now been extended to Los Angeles and surrounding territory, with one trucker in each zone. Additional destination areas will be considered should there be a demand for better service than is now available at a cost that will permit members to increase their sales volume.

Between origin and destination truck territories, Charter Oak shipments move by rail, starting on the New Haven at New Haven; on the New York Central at Springfield, Mass.; or on the Boston & Maine at Holyoke, Mass. Movement to Chicago is by Plan III piggyback (Flexi-Van on the NYC); to Los Angeles it's by a combination of Plan III piggyback to Chicago and Plan IV beyond, or by box car.

Availability of Plans III and IV piggyback in New England wasn't, incidentally, responsible for Charco's formation. It was organized before those plans came along. But it was understandably quick to take advantage of them; they, in turn, have helped Charter Oak grow.

Individual trailer loads, despite a maximum of 40,000 lb imposed by local highway weight restrictions, average about 37,000 lb; net weights per two-trailer piggyback flat car run from 72,000 lb up to 80,000.

For these high average loading—and their resulting contribution to profitable operation—Charter Oak officers give credit to:

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Inter-shipper cooperation also has been a major factor in meeting the 60-40 commodity mixing rule applicable under Plan III piggybacking. "That was an initial problem," Charco officers say. "To get our first Plan III load we had to combine brass and beverages. But with more members and more products we no longer have any difficulty. Its common, now, for our members to work together. One, for example, will ship a floor load of 30,000 lb of brass. Then another will top that off with up to 10,000 lb of some other commodity."

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Double Protection on L&D

Experience on claims has been equally satisfactory. By confining its operations to common carriers, the cooperative has "full recourse" in event of loss or damage, but it gives its members double protection by carrying its own insurance—an overriding cargo policy of $150,000 per trailer, $300,000 per catastrophe.

Savings accrue on a double basis—an immediate reduction in the rate actually paid, and additional subsequent distribution of operating surplus when accumulated.

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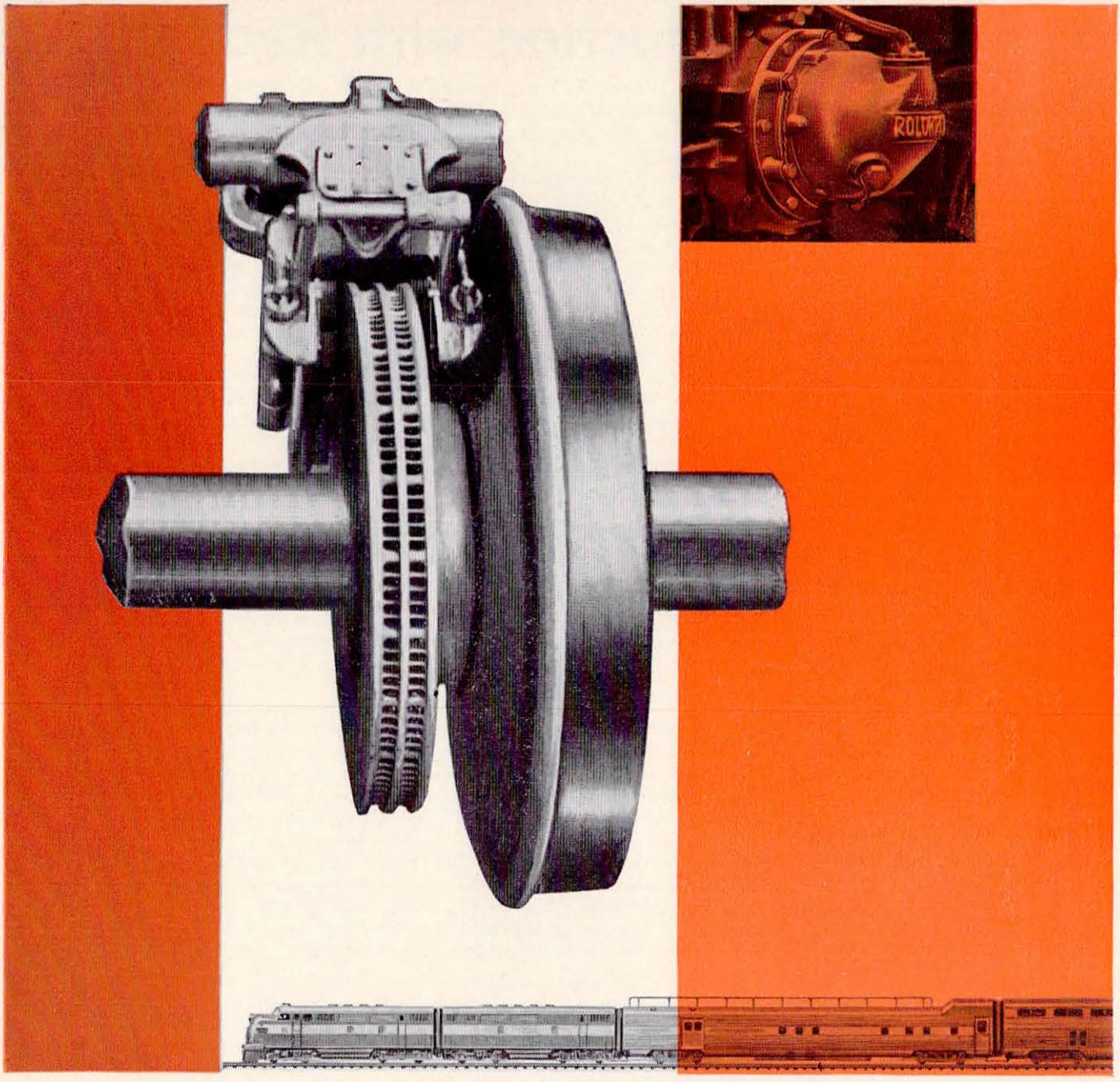

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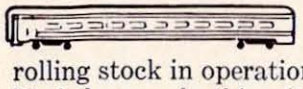

You need parts to keep your rolling stock in operation . . . and you need them fast. To help you do this without overloading your inventory, Budd maintains a special stock of Disc Brake and Rolokron parts. We can ship within 7 working days normally, even sooner in emergencies.

When you order from Budd, you can be sure of genuine Budd parts incorporating all the latest design improvements—designed for maximum life and minimum maintenance. Your costs are minimum, because Budd manufactures these parts in full-scale production runs and passes the savings on to you.

Also available from Budd are parts for RDC and other Budd cars, at quantity prices whenever possible.

Write to our Customer Service Department today for recommendations on a maintenance-parts program tailored to suit your individual requirements, based on your rolling stock and number of maintenance points.

ENGINEERING SERVICES AVAILABLE

Budd-trained engineering service representatives are ready to assist you with any unusual operating or maintenance problems.

RAILWAY Budd DIVISION
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More M/W Production with Radio

► **The Story at a Glance: The Clinchfield's maintenance gangs, road locomotives and cabooses are completely radio equipped. While radio expedites directly the work of the gangs, its biggest benefit is derived from radio flagging.**

The Clinchfield has three bridge gangs, one rail gang, and two surfacing gangs. Among them they have two tampers, two Burro cranes, one ballast regulator and six motor cars equipped with 6/12-volt automotive type radio. Some units of track equipment have 6-volt batteries; others have 12-volt batteries. Plug connectors are so wired, however, that radio sets may be interchanged between equipment units without regard to voltage. Each gang also has two packsets. These are equipped with rechargeable batteries which are plugged in at the camp cars each evening to renew their charge.

The work limits of a gang are defined by Conditional Stop signs. By regulation, these are always located at a milepost, which facilitates defining the work limits in train orders. An Approach sign is located at least 7,920 ft in approach to the Stop sign. At the end of each day, the foreman contacts the dispatcher and requests orders defining the next day's work limits.

Train crews are issued orders, Form "Y," which define the work limits. Trains holding such an order must not proceed beyond the point named in the order or the Conditional Stop sign located there until notified to do so, as provided in the order and as required by the rules.

Each such order issued becomes void at the expiration of the time limits named in it, after which the order cannot again be used.

Train order form "Y" must be a separate order and not issued as a part of another train order. No instructions or information except that specified in the form can be placed in the order.

The rule governing trains encountering work limits reads as follows:

"A train or engine holding train order form Y must not proceed beyond the Conditional Stop sign or the point named in the order until the order becomes void or the train is notified in person by the maintenance foreman named therein, either by means of radio communication or personal contact, that the track is clear. When the order becomes void, or such notice has been given, the train may proceed on its rights to do so under governing rules and other train orders it may hold. The absence of a Conditional Stop sign at the point named in the order does not authorize movement beyond that location. A Conditional Stop sign found in place after order form Y has become void will be disregarded."

This system of operation has reduced delays to trains by avoiding unnecessary stopping, and to the work gangs by eliminating the need to get into the clear at a fixed time for a train which may be late.

Under the former system using a live flagman, it was often necessary to stop a through train because the foreman could not get word to the flagman that the gang and equipment were in the clear. At a cost of about $75 per hour for the train crew and train expense, each stop cost $30 to $40. The gang lost the time the train was stopped unnecessarily and this cost about $25 to $30.

Another more tangible economy in manpower is the release of two flagmen for productive work. This saves, each work day, some $32 per gang by using radio flagging. Thus, if only one train per day per gang was stopped unnecessarily prior to use of radio flagging, the savings now amount to around $100 per day.

The Conditional Stop sign is a rectangular board painted red with white diagonal stripes. The Approach signs are diamond shaped and painted yellow with white horizontal stripes. They are mounted on a two-section pipe. The lower, female, portion is driven well into the ground at the appropriate location. The upper, male, portion carrying the signs is placed in the lower portion. A pin is passed through the two, and they are padlocked with a switch lock.

The procedure allows easy removal and replacement of the signs when the gang is going to work within the same limits more than one day. At the same time, it prevents unauthorized removal.

THIS 'CO-OP' REALLY WORKS (*Continued from page 26*)

Charco-handled shipments. This surplus comes from the difference between what Charco collects and what it actually pays for trailer lease, administration, insurance, and underlying physical carrier service—railroad line-haul and truck pick-up and delivery.

Legally, its officers say, Charter Oak's operation is that of a completely bona fide cooperative shipping association. It is incorporated as a non-profit organization under Connecticut law, and has been checked out by legal departments of member companies.

Size of company, incidentally, is no criterion of membership. Charco officers believe, though, that the association is proving particularly helpful to smaller shippers who can't utilize Plan III piggyback because of inability to ship full trailer loads or to meet the 60-40 mixing rule. Most of Charco's shipments (though not most of its freight) come, in fact, from relatively small concerns.

Present officers of Charter Oak are Elliott Brauch, warehousing manager of Burndy Corp., Norwalk, president; Felix Szumlaski, traffic manager, Fafnir Bearing Co., New Britain, vice-president; H. S. Wright, traffic manager, Eastern Color Print Co., Waterbury, secretary; and J. B. Griffin, director of traffic, Scovill Manufacturing Co., Waterbury, treasurer. The management agent is J. R. Abbey of Balco Terminals, Inc., of Boston, Mass.

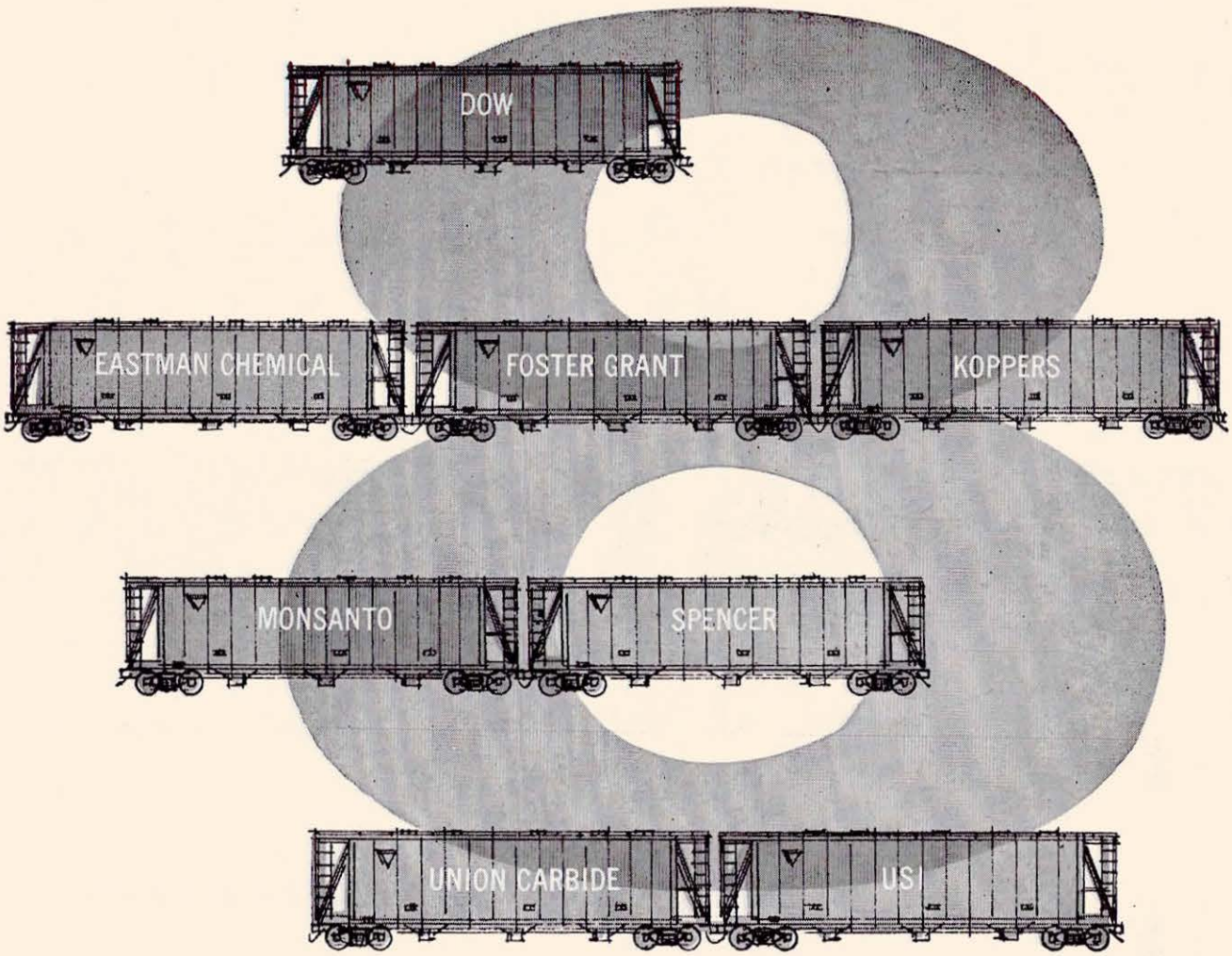
Charco's corporate offices are in West Hartford; its operating headquarters in New Haven.

J. B. Hedges, traffic manager, Manufacturers Association of Connecticut, did considerable work in getting Charco off the ground.

"It's not easy," Charter Oak officers told Railway Age, "to establish a sound, well-working cooperative. We still have our problems, and we don't want to brag.

"We know our service can be improved. But we think we're demonstrating what can be accomplished by men who are willing to look ahead; to be venturesome but not foolhardy; and who are willing to do a lot of hard work.

"What we have accomplished has come from growing one step at a time, watching our costs—and working together."



8 major chemical companies are now using the **DRY-FLO® CAR** for bulk shipment of **POLYETHYLENE** and **POLYSTYRENE**

Ask the nearest General American office about the advantages of bulk shipment for your product.

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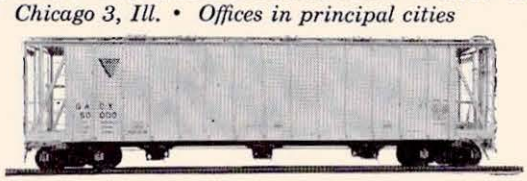

The Dry-Flo® car provides maximum sanitation and full protection for materials that require careful handling.

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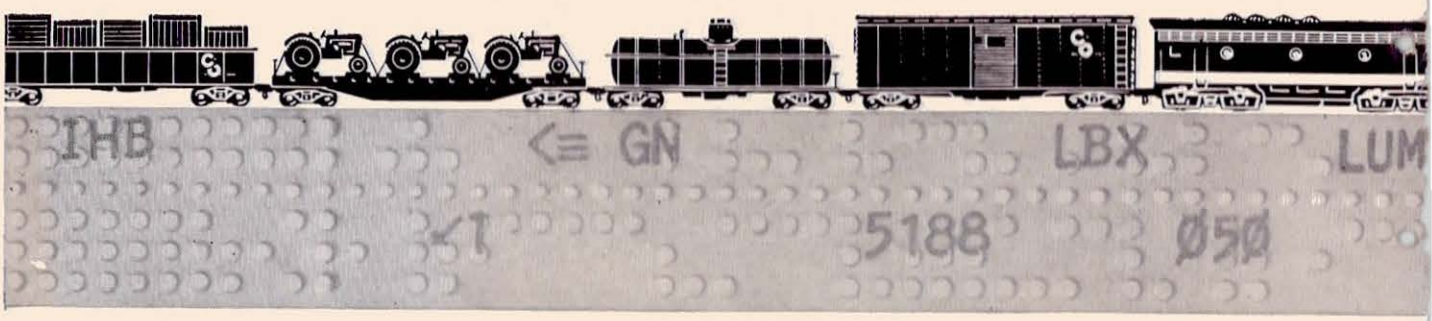


Prompt reporting on your car.

Every day C&O's CLIC (Car Location Information Center) dramatically demonstrates on-the-spot benefits to shippers and receivers.

This modern combination of electronic tape, teletype and alert people is another example of C&O's *Outstandability*. It provides in a matter of minutes, a dependable report on *your* car . . . where it is, where it's going, when it will get there. CLIC prompt reporting is in step with modern distribution. Gives you production and manpower scheduling economy, helps inventory control. It facilitates reconsignment or diversion of your car.

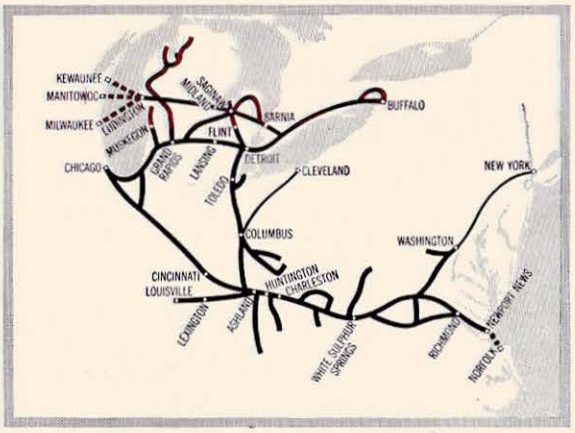
CLIC is just one of C&O's railroading innovations. Specify your shipment over The Chessie Route, and put them to work for you.

Chesapeake and Ohio Railway

TERMINAL TOWER, CLEVELAND 1, OHIO

Outstandability in Transportation

ability



SER NORF NORFOLK VA POWELL LELL

. by Chessie's CLIC

CLIC reports to every one of C&O's 56 coast-to-coast, Canada-to-Gulf freight offices. CLIC's prime function, keeping customers informed, is performed over 30,000 miles of teletype circuits in contact with 238 sending and receiving points throughout the country.

Car Location Information Center reports fully on your car as soon as it moves on the C&O Line. CLIC means fast service in diverting shipments . . . prompt spotting of empties for quick availability.

Cost Finding in One Lesson

A railroader's need for detailed cost information runs wider and deeper than can be readily fulfilled by the company figures usually available.

Any employee or supervisor, however, can readily make himself a competent beginner, at least, in getting reasonably familiar with cost problems, by applying ICC cost data to specific situations. Below is an example of how one "middle bracket" traffic department man tackled the problem.

He wanted to determine railroad (so-called "out-of-pocket") costs of handling carloads of varying weights of lading for varying distances—in various types of cars—on his own railroad. Such data, based on his railroad's own observed costs, were not available. He turned to the alternative of calculating cost tables for himself, deriving basic data from the ICC's so-called "Form A" cost statistics.

Regional Averages

The ICC costs are published as regional averages. The inquiring traffic man assumed his own road's costs would not depart too widely from the averages. He got a copy of ICC Cost Statement No. 5-59, and began to solve his problem.

He wanted to construct a table (which accompanies this article) that would show box car costs in the Western District. In the first line of the table on Statement 5-59's p. 71, terminal cost for box cars with a 20,000 lb load is shown to be $61.23 per car, plus 0.333¢ per 100 lb (200 of such units in this case). Doing the necessary arithmetic, he got $61.89 for the cost of terminal handling of the car. The terminal cost includes both point of origin and destination expense. On traffic originating and terminating on one railroad, that railroad would absorb all this cost. So the figure $61.89 appears in the accompanying table as the first item in column (a) "Terminal Cost per Car—Local."

If the car originates or terminates on another railroad, the traffic man's railroad incurs only half of the terminal cost per car—or $30.95. But it costs an average of $10.68 to interchange a car between railroads in the Western District (see p. 15 of Statement 5-59). This average figure has to be increased by 36% to allow for the percentage of "empty return" which prevails for box car traffic in the Western District. Hence, total terminal cost of an interchanged car with a 20,000 lb load in the Western District is $30.95 plus $10.68 plus $3.85. The total—$45.48—is the first figure in column (b) of the table, "Terminal Cost per Car—Interline."

If the car is an "overhead" move—both originating and terminating on connecting railroads—then terminal cost to the railroad under discussion adds up to the expense of two interchanges, or $29.04 (column (c) of the table).

The first item in column (d) is derived from data on pp. 71 and 76 in Statement 5-59. On p. 71, cost per car-mile is shown as 13.86544¢. To that must be added 20 times the per cwt.-mile figure of 0.01094¢ (2.188¢), giving a total of 16.05344¢. From this must be subtracted the interchange cost of 1.66403¢ (p. 76 of the Statement), per loaded car-mile, because it has already been included in the figure of 16.05344 cents. The result is 14.39¢ ($0.1439), the figure needed for the first line in column (d) of the table.

Calculations for different weights of lading, to produce the remainder of the table, are made in a similar manner.

The traffic department man who worked out the table for box cars has compiled similar tables for each of the other seven kinds of cars.

With the table, one can readily calculate—on a regional average basis—the probable out-of-pocket cost on any movement of freight when the type of car, weight and route mileage are known.

For example, suppose there is a box car with a 40,000-lb load which moves 400 miles, originating and terminating on one railroad. The terminal cost to the railroad is found by the table to be $62.56 plus 400 times 16.58¢ or $128.88. The cost for a 100-mile haul is $79.14. For 50 miles the cost is $70.85.

Length of Haul Is Vital

Note that the per-car-mile cost figures out to 32¢ per car-mile for the 400-mile haul; 79¢ per car-mile for 100 miles; and $1.42 cents per car-mile for 50 miles. Evidently, figures on per-car-mile earnings are without significance unless the length of haul is known.

Also note that the cost of moving 80,000 lb in two cars (40,000 lb in each car) for 100 miles is $158.28. Moving this load in one car, however, will cost only $84.84, a saving of $73.44, or 46%. This suggests the opportunity railroads have to offer shippers substantial discounts to induce heavier loading of cars.

This traffic man, equipped with the 8 tables he has compiled, is well on his way to doing his railroading like other business men do their business—knowing railroad costs, he looks at every rate or division to see what the profit margin is.

ICC cost calculations, of course, are not ideal. Compilations by individual roads would be better than regional averages—and ICC calculations include some indirect costs. Rates should be substantially higher than these costs where competition permits.

OUT-OF-POCKET COSTS
FOR A WESTERN DISTRICT BOX CAR

LADING PER CAR (in pounds)	Terminal Cost Per Car (a) LOCAL	(b) INTERLINE	(c) "OVERHEAD"	(d) LINE-HAUL COST PER CAR-MILE
20,000	$61.89	$45.48	$29.04	$0.1439
24,000	62.03	45.59	29.04	0.1483
30,000	62.23	45.79	29.04	0.1548
36,000	62.43	45.99	29.04	0.1614
40,000	62.56	46.12	29.04	0.1658
45,000	62.73	46.29	29.04	0.1712
50,000	62.89	46.46	29.04	0.1767
60,000	63.23	46.79	29.04	0.1877
70,000	63.56	47.12	29.04	0.1986
80,000	63.89	47.46	29.04	0.2095
90,000	64.22	47.79	29.04	0.2205
100,000	64.56	48.12	29.04	0.2314

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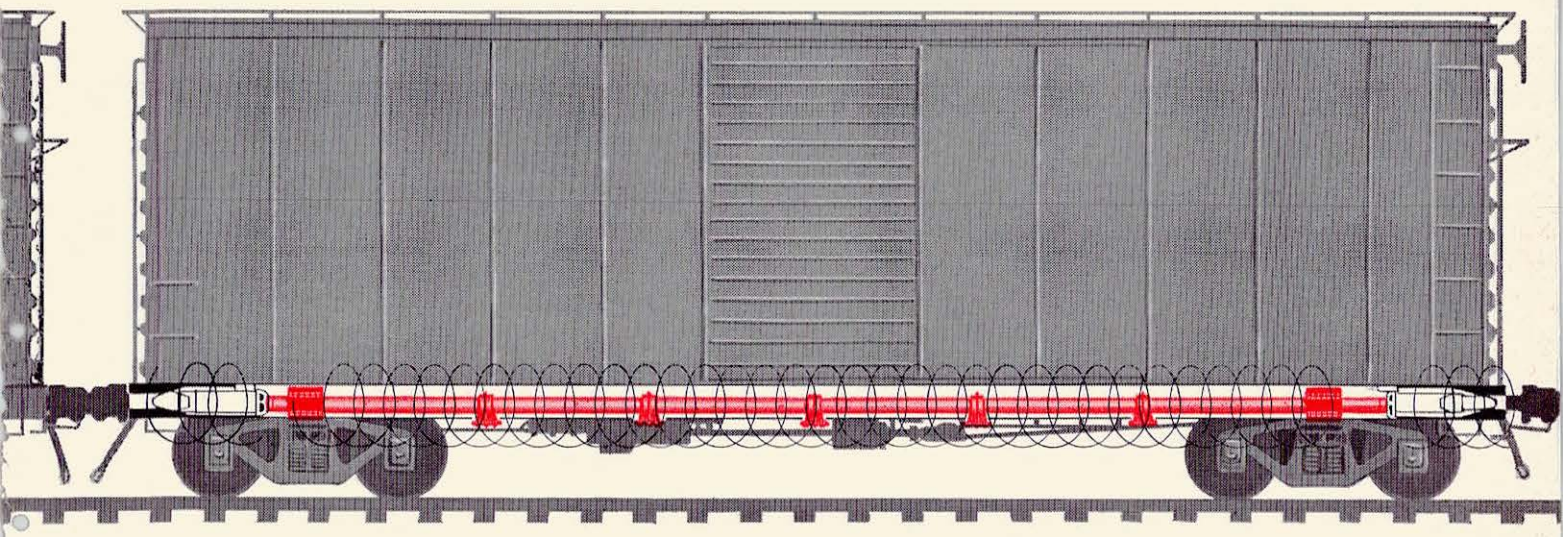

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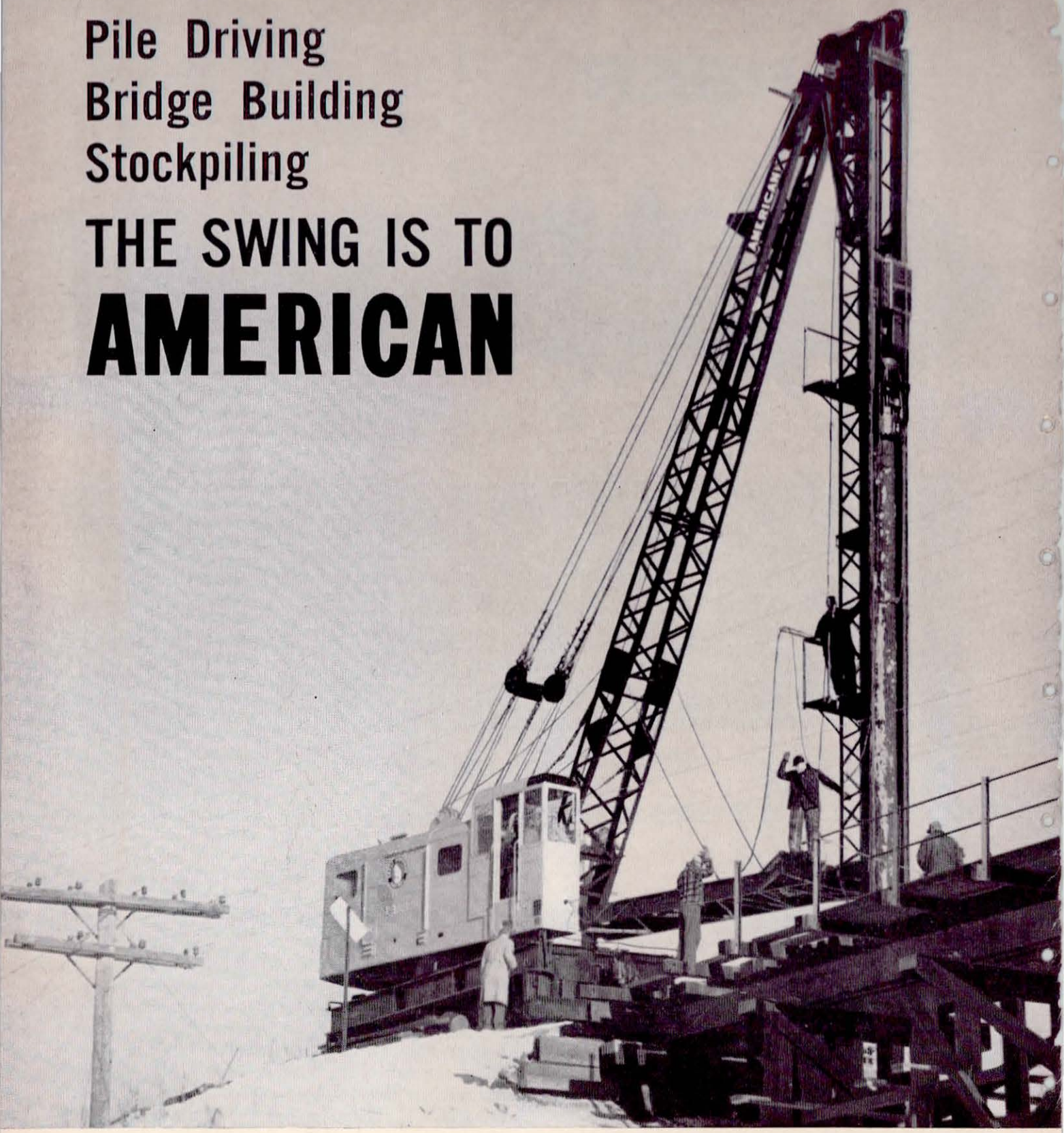

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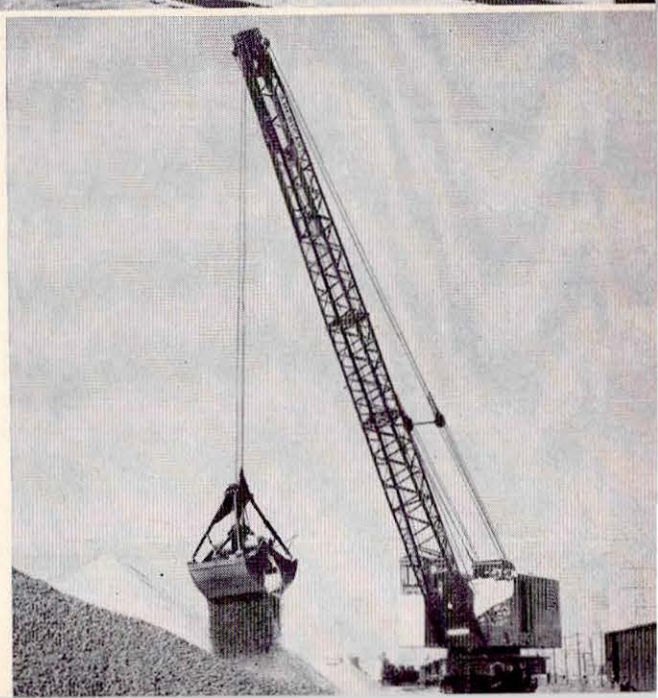


Why a public handout to these private interests?

This country's highways, airports, airways, and inland waterways have already cost over $150 billion.

Money to pay this huge bill has come substantially from the general taxpayers through the income taxes, property taxes and other *general* taxes they pay.

Yet these publicly-built transportation facilities are used extensively by private, commercial interests. And in many instances these private interests pay none of the costs of construction, maintenance, and operation.

In contrast, the railroads build and maintain their own facilities and pay taxes on them as well. Ironically, some of these taxes help build and maintain the facilities used by the railroads' competitors.

Some people ask, "But weren't the land grants of long ago a subsidy to the railroads?" No—this was not the case. In exchange for land grants, the few railroads that received them were required to carry government troops, personnel and property at half-price, and mail at four-fifths the standard rate. This form of repayment remained in effect until 1946, and by that time the government had received from the railroads rate reductions valued at more than a billion dollars—or about 10 times the value of the lands at the time they were received by the pioneer railroads.

Today billions more in taxes are being earmarked to expand and improve public transportation facilities. Shouldn't a fair share of these costs be paid by the private interests who use these facilities for profit?

ASSOCIATION OF AMERICAN RAILROADS • *Washington 6, D. C.*

SF Transit Cost: $1.2 Billion

► **The Story at a Glance: Engineers have hung a $1.2 billion price tag on proposals for a 132-mile, virtually automatic rapid transit system for the San Francisco Bay area. The total is the sum of consultants' "working estimates" —and it's somewhat above the maximum which the San Francisco Bay Area Rapid Transit District can finance under present legislation.**

Cost estimates are based on a construction period ending in December 1966. Revenue estimates pick up with 1967, run through 1980—and indicate that fares will be sufficient to pay all operating and maintenance costs, purchase rolling stock and still leave a "reasonable margin."

San Francisco and the Bay area have had their first look at their transit system for the future—a super-railroad for commuters. Initial reports envision a system with lightweight stainless steel or aluminum cars (up to 10 cars per train), moving at 80-mph speeds. Each car will carry 76 passengers (seated), will weigh about 72,000 pounds fully loaded.

Other highlights of the BARTD engineers' preliminary report:

- Control will be completely automatic during normal operation. One attendant will be aboard each train, but he'll have no override control except to stop the train in case of track obstruction. A digital computer will program all trains in terms of day-of-week, time-of-day, weather and passenger demand. The computer will bring trains into the system, actuate them and control their destinations. Trackside equipment will control speeds.
- Trains will be propelled by 600-volt dc motors. Electrical sources will be 24 stations throughout the area, with substations spaced at 6,500-ft intervals along the tracks. Propulsion equipment on the cars will be similar to that on present transit rolling stock, except for an increase in the horsepower requirement.
- The proposed fare schedule is based on a 25-cent minimum fare for any trip up to eight miles and fares ranging from 3.2 cents down to 2.11 cents per mile for trips up to 40 miles. The report predicts annual patronage of 89,500,000 in 1967, 111,000,000 in 1968 and almost 149,000,000 by 1980. On this basis of proposed fares and estimated patronage, the report foresees net revenues (after payment of operating and maintenance expense) of $12,763,000 in 1967, $18,088,000 in 1968 and $28,252,000 in 1980.
- All 132 miles of the system would be private right-of-way, including 35 miles at ground level, 27 miles in subways or tunnels and 65 miles on aerial structures. Routes would extend north, south and west from a subway complex in downtown San Francisco; north, south and east from a similar subway network in downtown Oakland. East and West Bay parts of the system would be connected by a four-mile underwater tunnel, for which the state legislation has already made a commitment of $115,000,000 in surplus Bay Bridge tolls. Major tunneling would also be required to link San Francisco with Sausalito ($81,000,000) and Oakland-Berkeley with Contra Costa county ($50,000,000).

Overall price tag in the preliminary report is $1,199,695,000. Walter S. Douglas, engineer in charge of consulting work, noted that "the aggregate of estimates is an amount in excess of what we understand can be financed under the District's present act. We are prepared to work with you by reporting the effects of various curtailments you may consider."

BARTD Chief Engineer K. M. Hoover emphasized that the report is only the first of several expected reports and that it does not represent a "final or recommended program." He said the initial report primarily reflects the costs of "meeting the desires for routes and types of construction of the various cities, counties and other public agencies with whom our engineers have worked."

Yet to come, Mr. Hoover said, are reports on several major studies—including those on the trans-Bay tube, on a Golden Gate Bridge link and on alternate routes in San Francisco and elsewhere.

The report on equipment design, BARTD indicated, was based largely on information supplied by rail suppliers. Several aircraft companies also submitted reports indicating the possibility of developing a car weighing up to 50% less than standard transit equipment.

Indications are that unconventional systems may be out of the running, and that the final proposal will call for more-or-less standard transit equipment and line construction. Monorail backers, Mr. Hoover commented, "have been in regular contact . . . Their ideas are, of course, imaginative. But they must prove to us that they can first of all attain the high speeds we have specified—75 to 80 miles per hour—and that they can solve sway and switching problems.

Before we can adopt any so-called unconventional system—regardless of how promising it might appear to be —we will have to require that it be thoroughly tested."

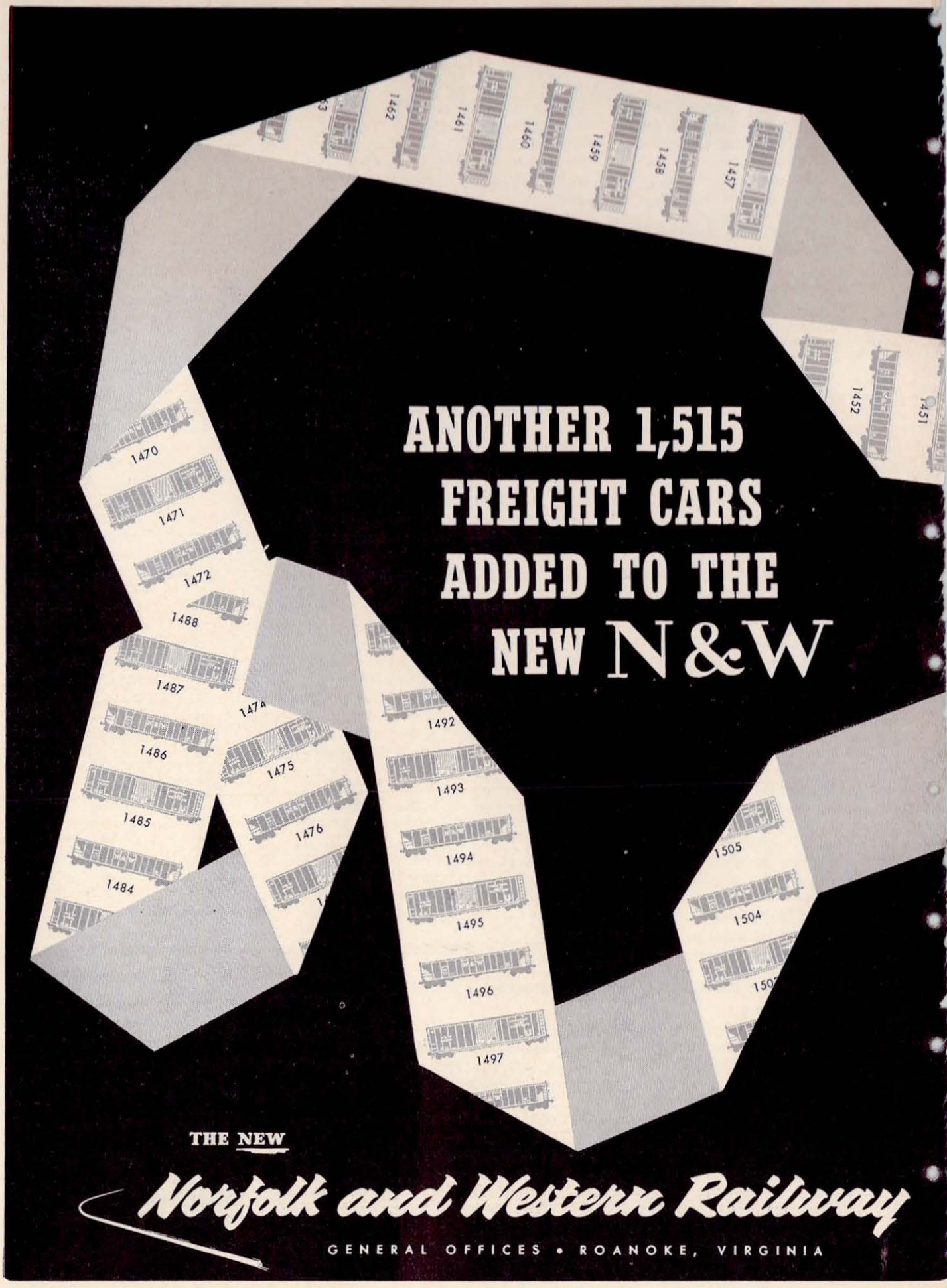
Gangewere Succeeds Fisher as Reading President

E. Paul Gangewere, vice president —operations and maintenance of the Reading since September 1950, last week was elected president of the company, effective June 1. He succeeds Joseph A. Fisher, who will retire after nearly 39 years of service. At the same time, Robert A. J. Morrison, assistant vice president—operations and maintenance, will advance to vice president—operations and maintenance.

Mr. Gangewere has been with the Reading 38 years. His entire railroad career has been in the operating, maintenance and motive power fields. He directed the design and building of the T-1 class steam locomotives of the Reading, later played a major role in the changeover to diesels.

Mr. Fisher, 65, has served as president of the Reading since Sept. 1, 1951. He joined the railroad in 1921 as a special agent in freight traffic.

E. Paul Gangewere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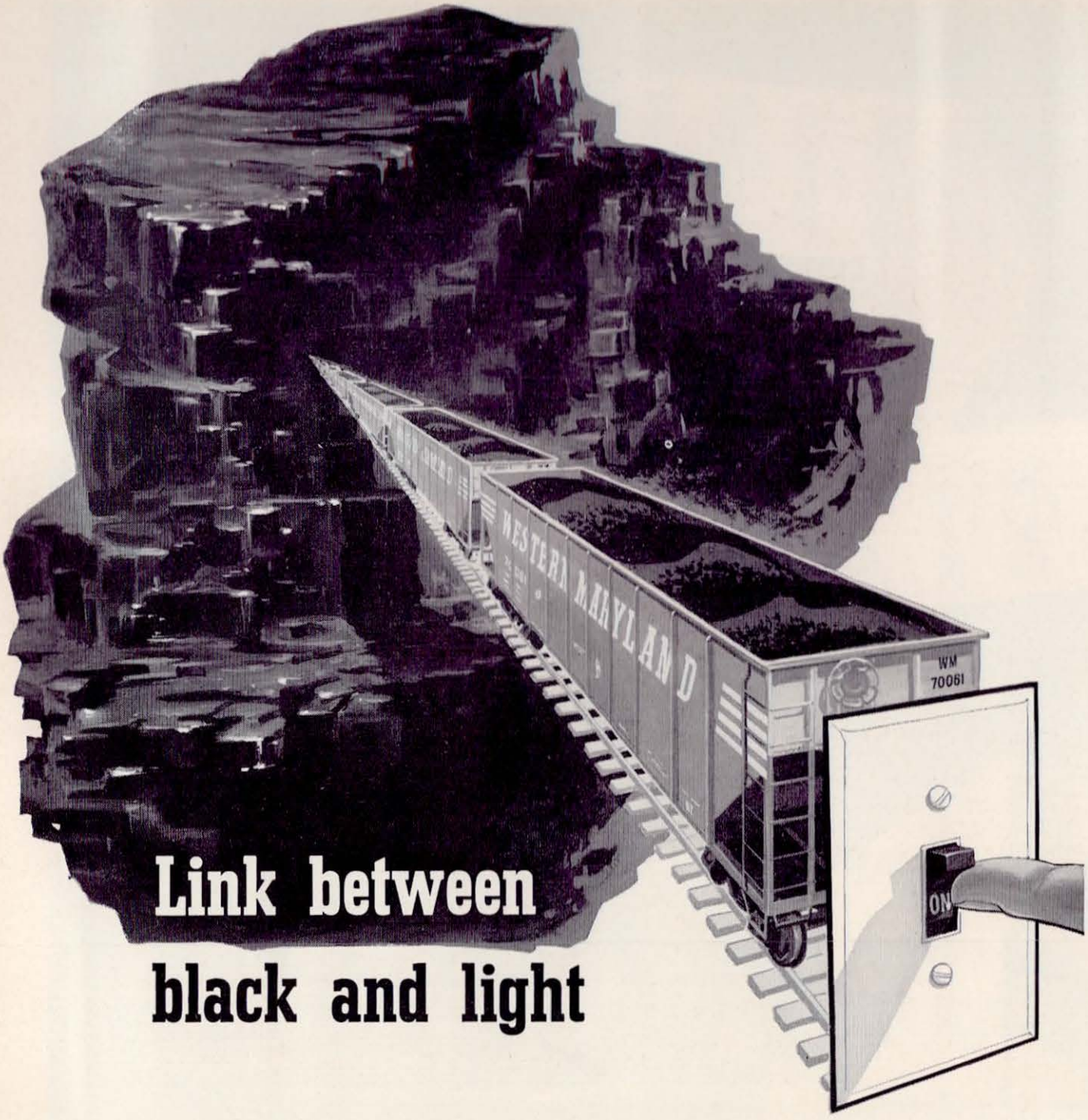
1,515 new freight cars were recently ordered, including DF cars, special purpose gondola container cars, and 1,000 85-ton roller bearing hopper coal cars.

These modern additions to the railroad's fleet increase N&W's ability and capacity to handle *your* freight faster and more efficiently. Ask any N&W freight traffic man.



Link between black and light

Next time you flick a lightswitch and watch the darkness disappear, stop and think about this:

Two thirds of the electricity in the United States is generated from coal. The nation's electric utility industry burns more than 150 million tons a year.

So you can understand why thousands of coal hopper cars with their 70-ton loads are always rolling on the rails of the Western Maryland . . . through the day . . . through the night. The coal producing and cleaning facilities served by Western Maryland rank with the most modern and efficient in the country.

Some of our hopper cars may be carrying their "black cargo" to the electric utility that serves *your* home, *your* family. We hope so, for that—at least indirectly—makes you another of the valued customers of the Western Maryland.

Coal—top grade bituminous coal—has always been an important source of the Western Maryland's tonnage and earnings. And whether a mill needs fine, low-sulphur coal for steel, or a utility wants high B.T.U. coal for heat or power . . . it's readily available along the Western Maryland.

Service is always prompt and friendly on the WM . . . *truly one of today's up-to-the-minute railroads.*

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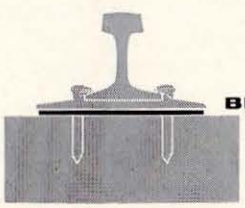

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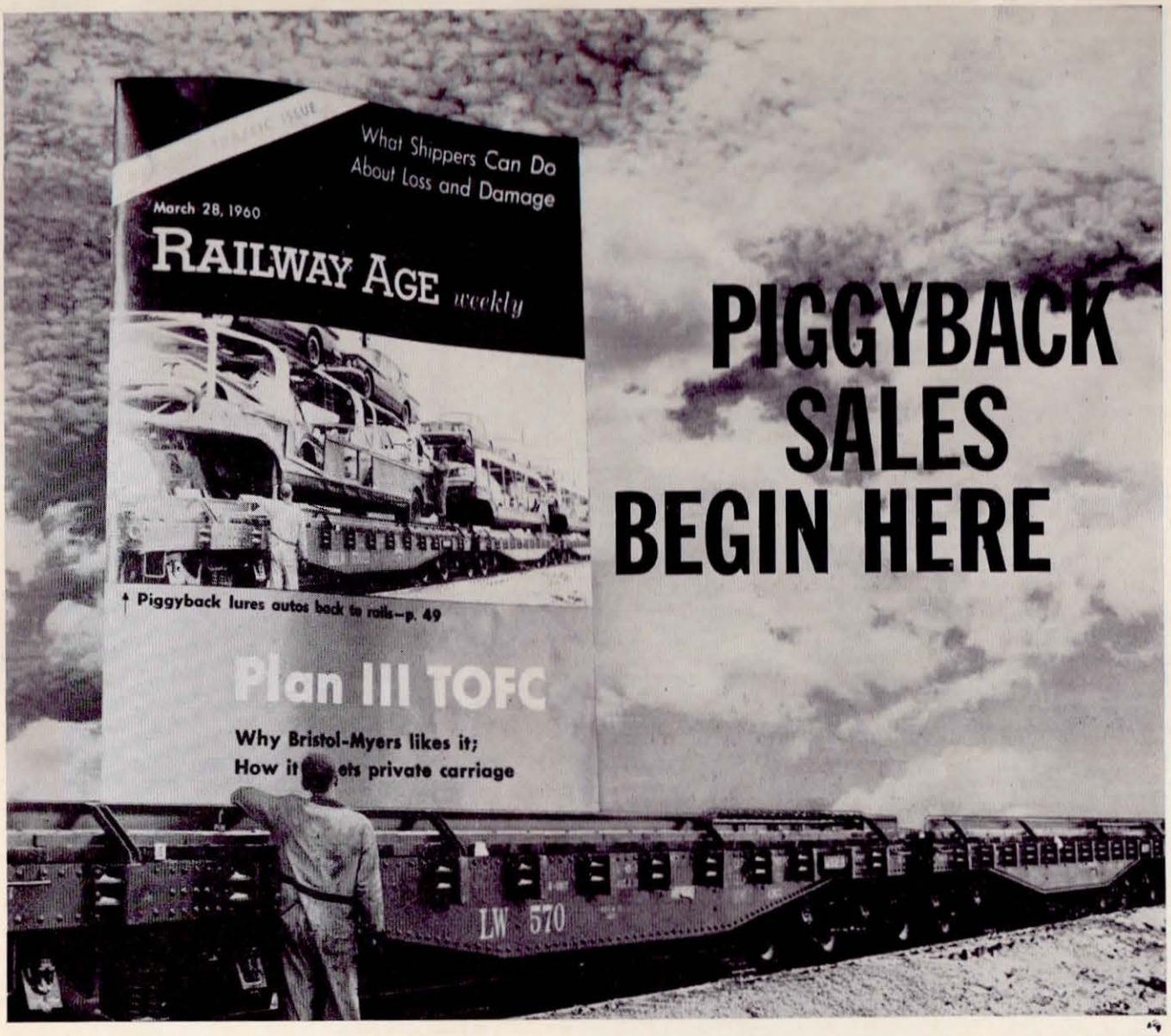
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RAILWAY AGE A SIMMONS-BOARDMAN TIME-SAVER PUBLICATION

Wage Talks Reach Climax

The kaleidoscopic national rail-wage negotiations move sharply into focus this week.

The expected pattern-making award in the BLE dispute will be announced by the six-man arbitration board before week's end.

Four other operating brotherhoods are preparing for the announcement in various ways:

- SUNA rejected compulsory arbitration and will begin presentation of its wage demands before a three-man emergency fact-finding board in Chicago on May 31. The president appointed the emergency board on May 21, delaying at least until late July SUNA's threatened strike against several western railroads. Chairman of the board is Russell A. Smith, a lawyer from Ann Arbor, Mich. He will be assisted by Morrison Handsaker, Chairman—Department of Economics, Lafayette College, Easton, Pa., and Harold M. Gilden, a Chicago lawyer.
- The National Mediation Board will resume its handling of the BLF&E negotiations. Board meetings with carrier conference committees and the BLF&E wage committee will be reopened after being recessed Jan. 29.
- ORC&B and BRT mediation efforts remain dormant this week. However, ORC&B President J. C. Paddock declared that he has urged the board to proffer arbitration and says he "expects further action from the National Mediation Board at any time."

On another national wage front the non-ops emergency board has gone into executive session after hearing closing arguments from the carriers and the unions last Saturday. A recommendation in this dispute is expected to follow closely on the heels of the BLE binding award. The emergency board decision in the non-ops wage case will not be binding on either party but such recommendations have historically been closely followed in subsequent negotiations.

On other labor fronts the Santa Fe Coast Lines dispute with the BLE over payment of an arbitrary for use of radio-telephone and a guaranteed mileage for extra board engineers is scheduled for airing before an emergency board beginning June 1 in Los Angeles.

Previously scheduled emergency board hearings in the BLE-DT&I radio-telephone dispute remain postponed indefinitely.

IDEAS FOR BETTER SHIPPING

Steel Straps Unitize Poles

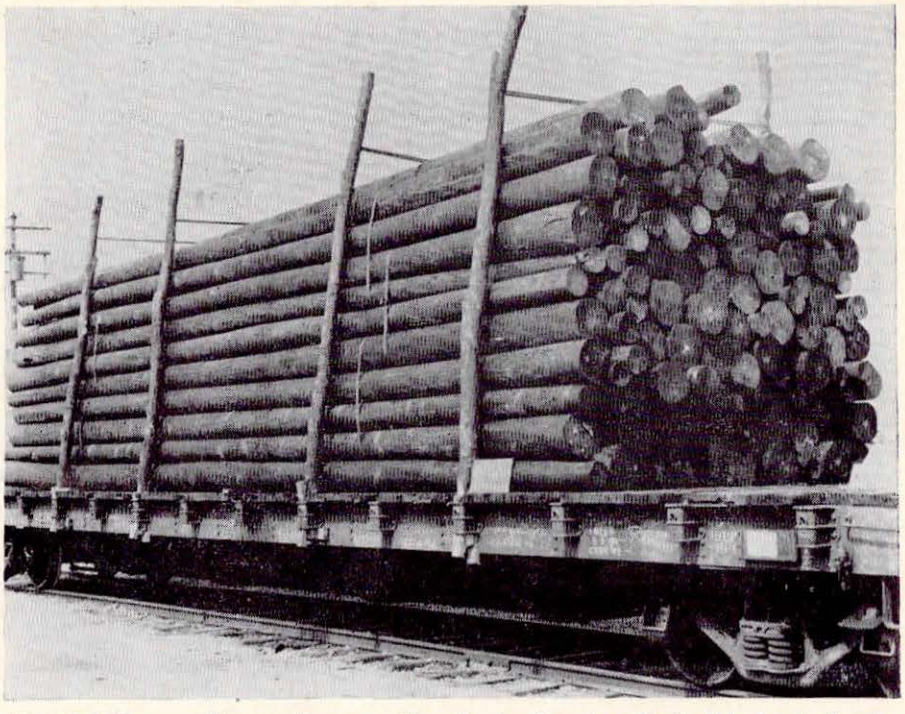
An improved method of loading and bracing treated poles and piling on flat and gondola cars has been approved for general use by the Association of American Railroads. More than 20 months of developmental work, and well over 200 experimental shipments, preceded formal acceptance of the new method, developed by Signode Steel Strapping Co. in cooperation with the AAR and a round dozen interested shippers.

In the Signode method, small overlapping section units of the total load are encircled with strapping in such a manner that these units interlock to form a tight mass. Each unitizing strap encircles a common layer of poles in two adjoining units. As the poles "settle" in transit, they press on the straps, thus taking out any slack that may have developed and helping to maintain tension.

AAR specifications are available for single, double and triple car loads; for single car overhang loads, and for gondola car shipments. Each category is divided into loads of less than four feet, four to seven feet. and seven feet and higher. Strapping patterns worked out by Signode engineers allow loading to proceed continuously, with strap tensioning and sealing coming after the loading.

The new method, in addition to insuring safe arrival, is said to save up to about $4.50 per car by use of 1¼-in. heavy-duty strapping in place of the 2-in. strapping formerly required.

Development of the new loading method began in September 1958, when R. G. Patterson, now Signode's forest products industry manager, was assigned to study the problem of "distress" loads of poles and piling. First experimental shipment was made in November 1958 by the Joslyn Manufacturing & Supply Co. of Franklin Park, Ill. Final AAR approval came last March, after some revision of the original plan based on about 200 test moves by Joslyn and other shippers.



STRAPPED according to the new Signode-developed method, this load of poles reached the receiver intact and damage-free. A system of interlocking, unitized sections, with layers of poles in adjacent sections strapped together, does it.

What Are Big RR Questions?

Time or Tonnage?

To the Question and Answer Editor:

I would like to propose this question: Why do American railroads insist upon heavy tonnage trains other than coal and ore, instead of breaking them down into smaller trains, say, of about 60 cars each?

In my opinion, trains of 60 cars or less would get over the road more expeditiously.

If for any reason there was a delay, a smaller number of cars would be involved, instead of the 125 to 150 cars now being handled.

Also, diesel locomotive power could be reduced from three or more units to two units. Further, the smaller trains could be switched and placed or delivered to connections much sooner than the current longer trains.—*J. M. Donovan, division freight sales manager, New York Central.*

RR Purchases Over-Inspected?

To the Question and Answer Editor:

Referring to your topic "Are railroad purchases over-inspected?"

The Purchases and Stores Division seems to be of the opinion that this is a good question. The Steering Committee for the Year 1959-1960, under supervision of the General Committee, made an assignment to Subject Committee 12—Purchasing Department Procedures, which reads as follows: "Develop what materials should be inspected."

As a result of this assignment, the matter has been reviewed to considerable extent. The report of this Committee, when completed, will be available at the time of the division's annual meeting, June 1, 2 and 3 in Chicago.—*P. A. Hollar, vice president—assistant to president, AAR.*

A forum for railroaders who want to explore questions of importance to their industry, this column welcomes both questions and answers from readers at all levels of responsibility in the industry and associated fields. We'll pay $10 to any reader submitting a question that forms the basis for a column discussion. Address correspondence to Question and Answer Editor, Railway Age, 30 Church St., New York 7, N.Y.

Who Uses Second Freight-Car Grab Iron?

To the Question and Answer Editor:

J. B. Robinson, assistant superintendent on the Western Maryland, complains about the cost of the two grab irons on the ends of the freight cars opposite the ladders [RA, Feb. 22, p. 19]. He also complains that he has never seen anyone use them and doesn't understand why they are placed on the cars at all.

The second paragraph of his letter states that in his 43 years of railroad experience he had never seen an employee use one of these grab irons "while attempting to couple or uncouple air hose, or to adjust couplers." I have had 47 or 48 years of railroad experience and I agree with Mr. Robinson. I have talked with a lot of railroad employees who agree with him, because it would be a physical impossibility to be on the side of a car and to couple or uncouple air hose or adjust couplers. That isn't the reason for placing grab irons and stirrups in this position.

About 31 or 32 years ago I made a complaint asking for a second grab iron in this position on box cars. About 28 years ago an understanding was reached between the Association of American Railroads and the Brotherhood of Railroad Trainmen that all new freight cars would be equipped with two grab irons rather than one on both ends of freight equipment opposite the ladder. Also, all equipment then in use, when sent to shops for repairs, was to have additional grab irons placed on the cars. The only reasons for these grab irons and stirrups being on a car is to expedite the work so train and yardmen can ride to the point of coupling with other cars, or to the point where the car is to be spotted.

Prior to the placing of the second grab iron on the car, men tried to ride these cars and found it almost impossible. They got both feet in the stirrup and held on to the grab iron with both hands. The stirrup and the grab iron were placed so close togther that it was impossible to remain in that position any length of time. Not only was it difficult to ride in that position, but it was dangerous, and many men were killed and injured.

Since reading Mr. Robinson's letter, I have talked to a large number of freight brakemen and switchmen who have never seen cars not equipped with two grab irons in this location. All of them agree that this second grab iron is a necessity and is much safer than the old system of only one grab iron, and that 18 inches or two feet above the stirrup.

At the time we reached the understanding with the representatives of the carriers, they agreed with us without any question. I remember some old gentlemen wondered why someone had not thought of this a long time ago.

I read quite a few articles in railroad publications and hear from railroad officers about doing away with grab irons and stirrups and other things on freight equipment. I have just about reached the point where I am agreeable to taking all grab irons, stirrups, ladders, running boards and brake steps off freight equipment. But I am not agreeable to removing just some of this equipment and leaving others on so as to create a more hazardous condition.

The idea of taking running boards off cars and leaving ladders on is just out of the question. Stirrups, grab irons and ladders help to expedite the handling of cars so men can ride while they are at work. If the carriers want to remove them, that is their business. The men will then have to walk alongside the cars while at work. It will be much safer, easier and will require more men. —*Harry See, National Legislative Representative, BRT.*

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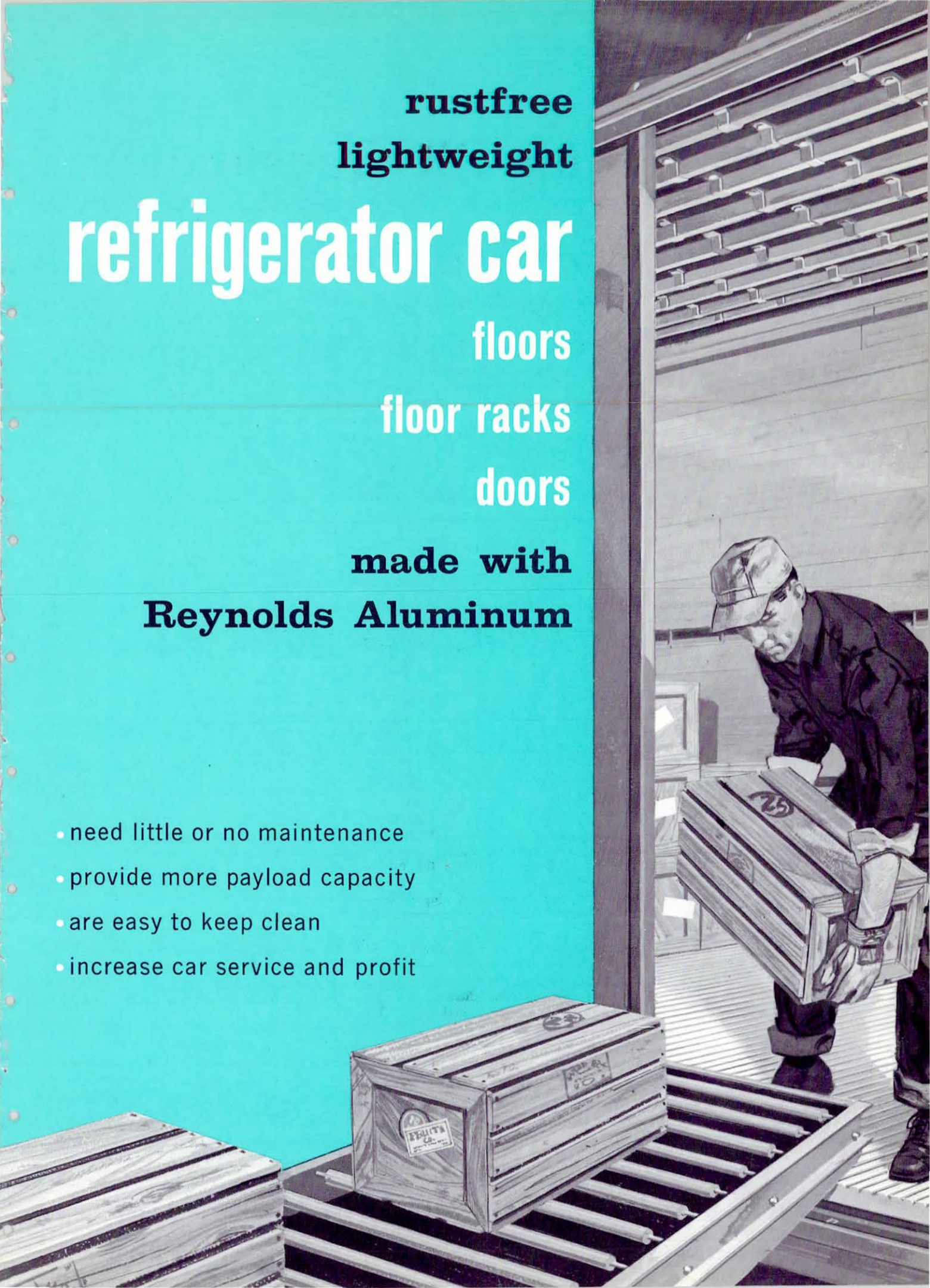
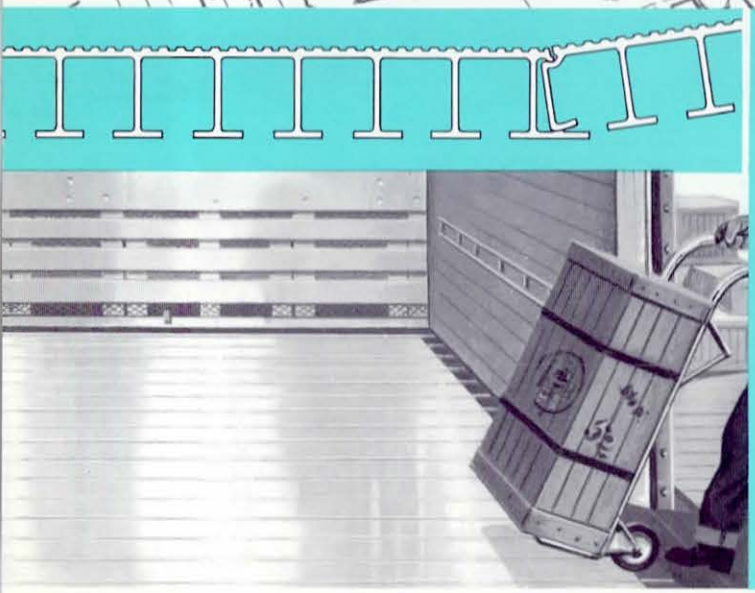
- increase car service and profit



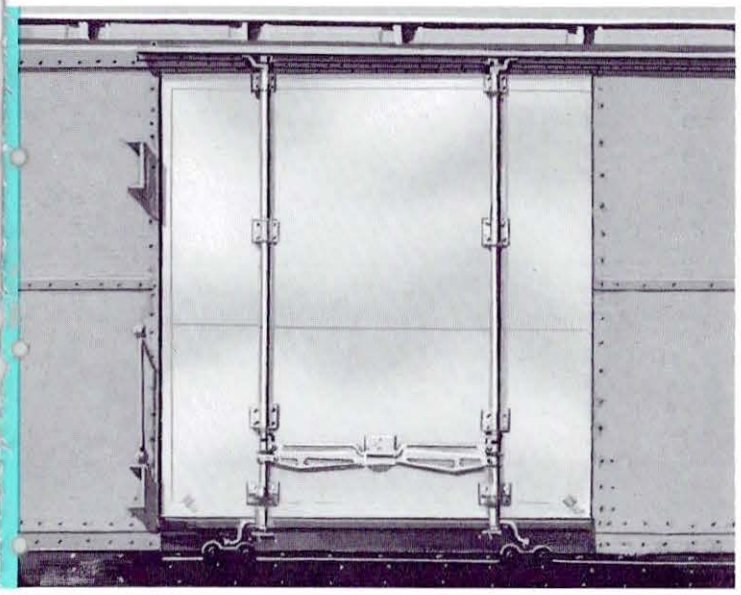


Flooring made with rugged, lightweight Reynolds Aluminum will *last as long as the car*. Wood floors are normally replaced during the life of the car, but an aluminum floor never needs replacement, outlasting several wood installations. Maintenance is much lower with aluminum. It won't rust, rot, or soak up moisture. It won't splinter or warp. And, with the Reynolds interlocking extrusion design, the floor is water-tight, so insulation stays dry, serves longer. Flooring made with aluminum won't absorb odors, is easy to keep clean, and is *strong*, resisting wear, corrosion and damage. Down time is reduced because aluminum flooring needs so little attention, never needs "drying out."

Floor Racks of Reynolds Aluminum eliminate just about all the long-range service and cost problems of racks made with other materials. Aluminum racks won't absorb moisture or grease; they won't splinter or rot. They resist rust and corrosion, need no protective coatings. Aluminum floor racks are rugged, too, and can take a lot of punishment from fork lift truck wheels and cargo containers. And, strong as they are, floor racks of Reynolds Aluminum are light in weight. They're easy to install and remove from a car, and they cut car dead weight to increase freight capacity. Aluminum floor racks quickly return their slightly higher initial cost—in lower maintenance and longer service.

refrigerator car components

made with Reynolds Aluminum reduce maintenance and replacement costs



Doors made with Reynolds Aluminum are operated easily by one man, without "crowbar" tactics. They're light in weight, weighing as little as 740 lbs., compared to over 1,000 lbs. for steel doors. Maintenance is lower with aluminum doors; they never need protective painting; they resist corrosion; they won't rust. Tested in daily rail service, doors of rugged Reynolds Aluminum take the toughest freight duty.

DEAD WEIGHT SAVINGS POSSIBLE WITH ALUMINUM COMPONENTS

Component	Weight Aluminum	Weight Steel or Wood
Flooring—40 ft. car	1,278 lbs.	1,900 lbs. (wood)
Floor racks—40 ft. car	1,040 lbs.	3,000-4,000 lbs. (steel)
Door—8 ft.	740 lbs.	1,090 lbs. (steel)

There's more *profit* in a refrigerator car—for both the shipper and the owner—when that car has doors, floors, or floor racks made with Reynolds Aluminum. That's because this strong, lightweight, rustfree metal is one material that can guard freight quality and cut costs at the same time.

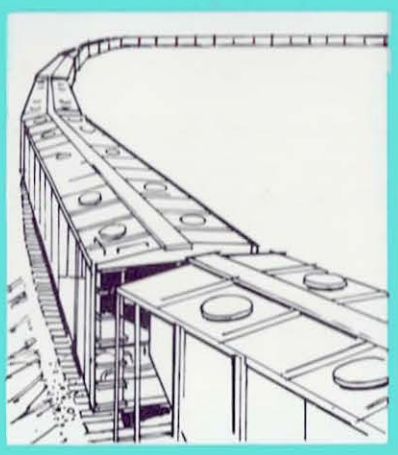
Cargo is better-protected from damage and spoilage because aluminum is strong and rustfree, and will not soak up odors and moisture. Refrigerator cars with aluminum components are easy to maintain, easy to keep "surgically clean."

The owner profits, too, because aluminum car components stand up better in service, and serve longer. Pound for pound, aluminum is stronger than steel, although it weighs just one-third as much. At the end of their long service, aluminum components retain a high scrap value to return an important part of the owner's investment.

Light weight . . . strength . . . durability . . . low maintenance . . . that's what makes refrigerator cars with components of Reynolds Aluminum high-payload, high-profit cars.

Write for details on equipment made with Reynolds Aluminum . . . see next page

Reynolds
...knows aluminum
...knows aluminum for railroads



The aluminum refrigerator car components described on the previous pages were not born overnight. They are the results of many years of intensive development work by Reynolds engineers teamed with top railroad equipment manufacturers, shippers, and operators.

This teamwork between the rail industry and Reynolds aims at these goals: to develop aluminum products that will reduce operating and maintenance costs . . . to do a better job for shippers . . . and to increase revenue and return for operators.

Refrigerator car components are just one result of that work. Reynolds Aluminum is improving service and cutting costs in other rail equipment, as well: box car doors, inner-liners, and roofs, bridge plates, crossmembers, containers, electrical equipment and conductors, signs, chain link fencing, and utility buildings.

For specialized technical help from the people who know aluminum for railroad applications, contact your local Reynolds office. Or write *Reynolds Metals Company, P.O. Box 2346-TM, Richmond 18, Virginia.*

REYNOLDS ALUMINUM

Watch Reynolds TV Shows: "Bourbon Street Beat" and "Adventures in Paradise"; and, resuming in October, "All Star Golf"—ABC-TV

MEMBER

P&S Division Meets in Chicago June 1-3

The 34th annual meeting of the Purchases & Stores Division of the AAR, which opens in Chicago this week, will continue—and actually expand—the streamlined meeting procedure adopted with great success a year ago.

The June 1-3 meeting is being held at Chicago's Palmer House, with E. A. Bromley, vice president, purchases & stores, Canadian National, presiding. Mr. Bromley is chairman of the P&S Division.

Convention Committee Chairman V. E. McCoy, chief purchasing officer, Milwaukee Road, and Program Chairman Harold Berry, manager of purchases & stores, Rock Island, have scheduled committee meetings to provide maximum discussion and attendance at each session.

Speakers from outside the railroad industry will participate in the 1960 meeting, not only during general sessions but in committee work as well.

They will include W. G. Stump, United States Forest Service; Joseph Hosey, International Business Machines Corp.; C. R. Barr, Standard Oil (Ind.); Richard B. Johnson, Consolidated Natural Gas System; Dr. John K. Langum, Business Economics, Inc., and Lawrence D. Miles, General Electric, among others.

Particular interest has been evidenced in a panel discussion, scheduled for the final day of the three-day meeting, during which a four-man panel of railroad supply company representatives will answer questions from a railroad-man audience. This panel is a switch from a similar panel sponsored by the Railway Progress Institute at a sales training seminar last February. At that time, railroad officers comprised the panel, and they handled questions from an audience of railway suppliers (RA, Feb. 15, p. 44).

The P&S panel this week will be moderated by Holcombe Parkes, president of RPI. Panelists will be George L. Green, vice president, Pullman Standard; Goff Smith, vice president, American Steel Foundries; Robert M. Coultas, manager transportation sales for General Electric at Cleveland, and John F. Corcoran, vice president, Union Asbestos and Rubber.

Downing B. Jenks, president of the Rock Island, will address the annual luncheon on Thursday, speaking on "What Management Expects of Purchasing & Stores."

Winning papers in the division's annual essay contest will be presented during the meeting. This year's awards go to Raymond J. Keller, secretary to purchasing agent, Texas & New Orleans, and Reeves N. Ingram, general storekeeper, Illinois Central. Mr. Keller was also a winner last year.

At this year's P&S meeting, as in the past, major interest will center around the reports of the subject committees. These committees will be presenting for division approval the conclusions reached after a full year, or more, of study on these subjects: Scrap and Reclamation, Standard Materials Classification, Forest Products, Petroleum Products and Coal, Purchasing Department Procedures, Office Supplies and Equipment, Material Handling, Simplification and Standardization, Data Processing Procedures, Stores Department Procedures, and Diesel Parts.

Already presented to division members for pre-convention study, the reports have been docketed for group discussion.

CONTAINERIZATION *(Continued from page 9)*

units from one carrier to another. A few years ago, when Spector Motor Freight and the PRR began experimenting with the 17-ft Mobilvan box, the answer seemed to be in a heavy-duty fork lift. But this hasn't worked out because the cost of fork-lift equipment of this type (about $1 per pound of lifting capacity) is considered too expensive for general use.

Later developments have included a direct side-to-side transfer, introduced by Railiner, Inc., Flexi-Van's turntable-equipped flat cars for side loading, a roll-on, roll-off plan worked out by General American-Fruehauf and, of course, variations of the lift-on, lift-off idea used, among others, by the Missouri Pacific.

Which, if any, of these systems will ultimately provide the accepted standard it is too early to tell. As things stand now, the transfer question has not been answered to everybody's satisfaction, and it remains one of the physical handicaps to growth.

The prevailing interest in equipment suggests that container service is technically feasible now, which it is. Ship lines, both international and coastal, are providing such service.

Ship operators like containers because they eliminate pilferage and because of the great savings they provide in loading-unloading cost. In coastal service loading and unloading costs can run as high as 50% of total terminal expense; with containers these costs can be reduced sharply.

Fishyback may actually provide an added push to land carriers, if things go the way they're expected. Some ship lines talk of landing as many as 1,000 vans a week at New York port alone in the not-too-distant future; if they do, some land carrier is either going to get set for inland moves or else sit by and watch the business go to contract or private trucks.

Nor, on the same basis, can air freight be overlooked in the container picture. Airlines, some with converted passenger equipment now but with new cargo aircraft on the way, are already engaged in a big push for freight. Containerization is one tool for minimizing airport delay and keeping these expensive planes in the air. Railway Express apparently has taken a look at this situation and found it promising, judging by recently announced plans for joining in coordinated service with United Airlines to serve non-airport points.

In this fast-moving pattern of developments, railroad traffic officers are faced with a host of questions that need answers.

Is containerization, first of all, merely an extension of present piggybacking or is it the logical "next step," combining piggyback's advantages with enough added ones to make it worthwhile—an end to clearance problems, for example?

Will container use by other carriers generate a "market" too big to be ignored and which cannot be served otherwise? And if it does, how can the container idea be made to pay off unless balanced movements between major points are assured?

In all this free-wheeling talk about integration, is there a suggestion that through rates with other types of carriers is assumed?

And speaking of rates, what about the legal requirements about observing freight classifications? If the container idea contemplates pricing on the basis of so-much-per-unit, isn't anything over, say 20,000 lbs, apt to jeopardize the whole box car rate structure?

Needed: 'Statesmanship'—Beard

► **The Story at a Glance: Existence of a "transportation problem" may be due in considerable degree to "lack of statesmanship" on the part of carriers and shippers alike. "True statesmanship," on the other hand, would lay the groundwork for "a sound future system, regardless of immediate advantages or disadvantages."**

Putting his ideas in the form of pithy statements or searching questions, C. H. Beard, general traffic manager, Union Carbide Corp., has entered a strong plea for exercise of "true statesmanship" as a means of overcoming the "transportation problem." His forum was the Traffic Club of New York; the occasion, its Transportation Week dinner, May 19.

"Certainly," Mr. Beard said, "Providence has not decreed that transportation should be eternally plagued by lack of expert management, so we must look elsewhere for the causes" of the transportation problem.

"One of these causes most certainly is a supply greater than the demand. Another is regulation. Still another may be lack of statesmanship—not confined to transportation managements, but possibly shared by the users.

"It's no great task to be statesmanlike if, by so doing, you gain an immediate advantage. But it's the long-range program and planning that develops true statesmanship—to avoid possible disasters five or more years hence—and also lays the groundwork for a sound system for future business managers, regardless of immediate advantages or disadvantages."

Getting down to cases, Mr. Beard indicated specific directions in which he felt "true statesmanship" might lead:

● **New services** — "Transportation companies should not endeavor to block, but should foster, all ideas and new methods that are truly in the public interest, regardless of how they may be affected as individuals. New ideas and methods developed by one form of transport will stimulate other forms, and users, to develop them further, or come up with different and even better ideas and methods. One of the most recent such developments was Plan III and IV piggyback. These are in the public interest. . . . They affect one form of transport advantageously; another disadvantageously. It is hoped those affected disadvantageously will not oppose this program, but seek and find other methods or techniques to match or improve it."

● **Common ownership**—"The majority of users believe it is in the public interest to permit common ownership [of two or more forms of transport]. If that is a fact, it is statesmanship for all to support it."

● **Mergers**—"With the surplus of transport facilities, mergers might well be in the public interest. May our transportation managers and labor be sufficiently unselfish to lash away at this problem until real results are obtained, because a smaller sacrifice today or tomorrow is better than total oblivion a few years from now."

● **User charges**—"Would you agree that the statesmanlike approach might be to have carriers themselves endeavor to settle the matter through intensive studies of their own, and give the results sufficient publicity to permit the public to intelligently debate their findings? Do shippers and receivers really want something for nothing? Are they entitled to it?"

● **Rate suspensions** — "Railroads should compete with one another on the same terms they compete with other modes of transportation."

● **Relaxation of rate regulation**—"This will admittedly hurt some and help others. We must find the solution that comes nearest to protecting the public. Statesmanship may be necessary here more than in any other phase of the industry."

● **Section 22 rates**—"Government should not operate under any different rules than any other user. 'Bigness' of government should not be a license to pit one form of transport against another in an effort to place less of the total transportation burden on government and more on industry."

● **Bulk exemptions**—"Have exempt water carriers a logical and statesmanlike objection [to extending the exemption to railroads and motor carriers]? Is the bulk exemption necessary or desirable?"

● **Freight car supply**—"Are users willing to have free time reduced to 24 hours for loading and unloading? Is this one of the things shippers should do to show statesmanship in transportation?"

● **Truck restrictions**—"Many motor carrier certificates and permits are restricted . . . Is this economically sound? Should railroad 'key point' restrictions be altered or broadened?"

New Budd Transit Car Passes Squeeze Test

Squeeze test, subjecting first of new stainless-steel Philadelphia transit cars to 200,000 lb end load, was recently conducted at the Budd Co. test plant. Following successful completion of the test, the car shell went back on the Budd production line for completion. First train, due for June delivery, will be part of a 270 car order which will completely reequip the Frankford-Market transit line. Placed by City of Philadelphia and Philadelphia Transportation Co., $25 million order is largest ever placed for stainless steel equipment for use in U.S. transit.

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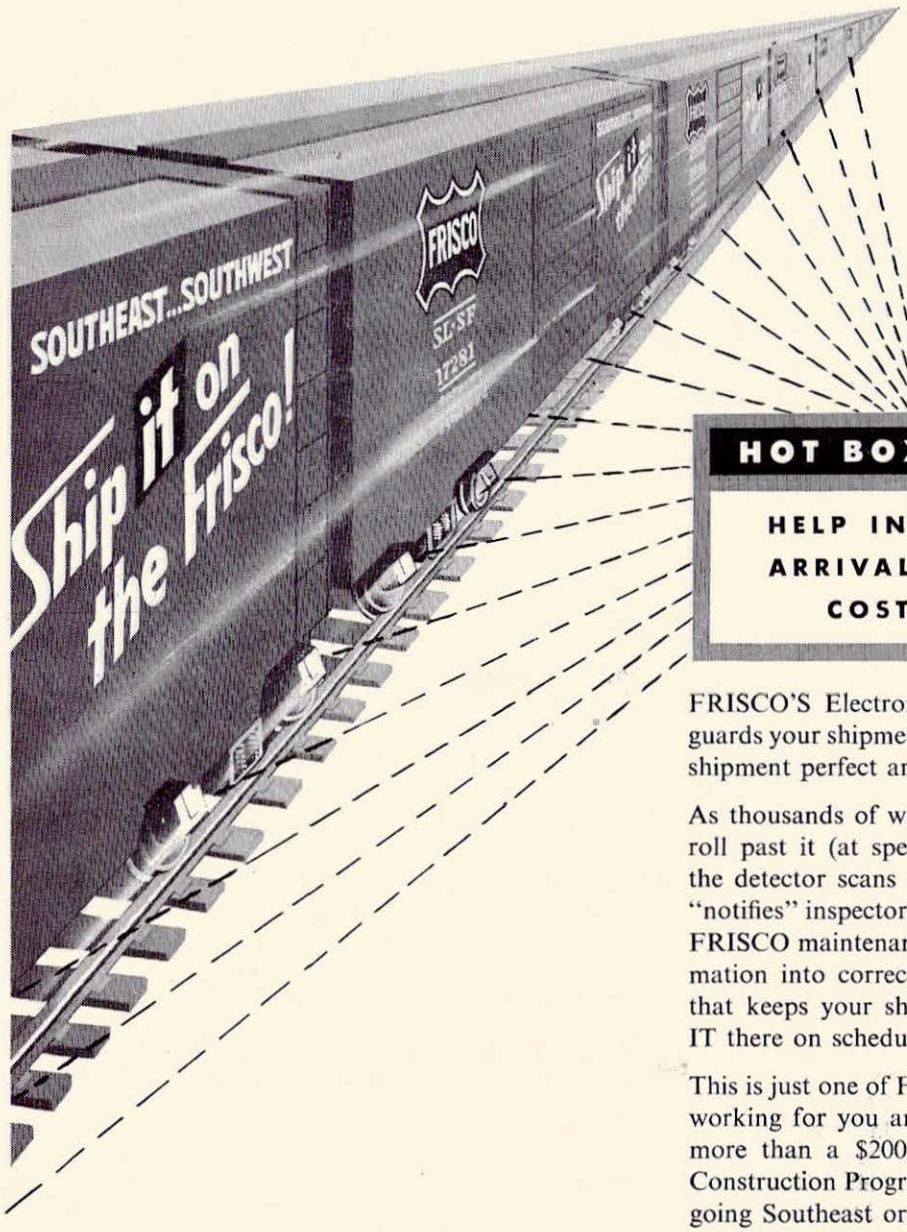
when you SHIP IT ON THE FRISCO



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FRISCO'S Electronic Hot Box Detector safeguards your shipment enroute . . . helps give your shipment perfect arrival—right on schedule!

As thousands of wheels on a long freight train roll past it (at speeds up to a mile-a-minute), the detector scans each wheel journal box and "notifies" inspectors of potential trouble. Skilled FRISCO maintenance crews translate this information into corrective and preventative action that keeps your shipment *on the move* . . . gets IT there on schedule!

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L&HR Party To Mark '100 Years'

The general offices of the Lehigh & Hudson River at Warwick, N.Y., will be astir early next Saturday morning as officers and employees of the line shape last-minute plans for a rare occasion.

That day, the L&HR is celebrating its 100th anniversary. The road is an important bridge line between New England, where it connects with the New Haven, and New Jersey-Pennsylvania points, where it connects with six other lines.

On June 4, the L&HR is operating two special passenger trains on round trips over its entire main line in a kind of rolling birthday party. The trains will link celebrations in individual towns along the railroad.

Both trains have been sold out for weeks. The first section, powered by a Reading steam locomotive, will pull out of Warwick for Maybrook, N.Y., at 9 a.m.; the second, behind an L&HR diesel, will follow at 10. From Maybrook, the two specials will traverse the entire 72-mile line to Belvidere, N.J., turn, and return to Warwick. At Belvidere they will trade power so each train will have a steam run in one direction. Both trains will consist of Erie passenger equipment.

Mention of the equipment is part of the L&HR story. The road has busied itself with freight from its early farm-produce days, and ran passenger trains for years, but now it has no passenger cars of its own. The road discontinued the service in July 1939. Nor does the road own or operate any steam. It converted to diesels in 1950—one of the first roads in the country to do so. Today it operates 13 units, all recently upgraded with improved engines.

While an estimated 97% of L&HR traffic is overhead business, the road nevertheless works at being a good neighbor in on-line communities. For example, the L&HR has been actively promoting industry sites in Warwick with some success. This community identity is one reason why the road's upcoming birthday trains are sold out; and why, among other things, the Warwick postmaster plans to move mail on the trains so it will get a specially-approved commemorative marking.

The L&HR actually dates back to an organizational meeting in Warwick on April 20, 1859. In March 1860, a charter was granted to the predecessor company, Warwick Valley Railroad Co., for a 10-mile line from Warwick to Greycourt, a point near Chester, N.Y. Construction work began in June of that year—the anniversary of which is being celebrated this week—and the line opened for business in April 1862. The new railroad connected with the New York & Erie to provide an all-rail route to New York City markets for Warwick area farm and dairy products.

L&HR LOCOMOTIVE NO. 2, heading a multiple-unit combination of power, in the road's yard at Warwick.

In the early years, power and cars for the WV were provided under agreement by the NY&E. The arrangement was terminated in 1880 since, by then, the WV had acquired its own rolling stock.

Like all railroads, the original WV expanded by building new trackage, and acquiring other lines, in the years after 1880. Eleven miles were added that year; and various mergers led to consolidation under the present name in 1882. The line by this time extended 63 miles, Greycourt to Belvidere, N.J. In 1889, the L&HR obtained trackage rights over the PRR from Belvidere to Phillipsburg, N.J. (13.3 mi) and, in 1890, a new line was opened between Greycourt and Maybrook, N.Y. (10.7 mi). These moves, together with acquisition in 1890 of a rail bridge over the Delaware River between Phillipsburg and Easton, Pa., and the acquisition of operating rights over Lackawanna trackage, Andover, N.J., to Port Morris, in 1905, completed the road as it exists today.

The present L&HR, headed by President Harold W. Quinlan, is a modern and busy bridge line. Once, on-line milk shippers accounted for about 50% of the road's gross revenue but that traffic is entirely gone now. In its place today are scheduled freights with coal, merchandise, perishables, grain, iron and steel and other commodities. This is largely overhead business, and to keep it coming the road maintains off-line sales offices in major cities as far west as Chicago.

To keep service standards high, the L&HR has laid 131-lb rail in most of its main track. The 100-lb rail remaining is slated for replacement. The main track is gravel ballasted. Power is provided by 1,600-hp road-switchers, and since 1957 the road has used radio for end-to-end, train-to-train and wayside-to-train communication.

Dividends Declared

ALABAMA GREAT SOUTHERN.—Ordinary, $4, semiannual; 6% participating preferred, $4, semiannual, both payable June 20 to holders of record May 31.

ALLEGHENY & WESTERN.—Guaranteed, $3, semiannual, payable July 1 to holders of record June 17.

BEECH CREEK.—50¢, quarterly, payable July 1 to holders of record June 15.

CHICAGO GREAT WESTERN.—common, 50¢, quarterly, payable July 5 to holders of record June 16; 5% preferred, 62½¢, quarterly, payable June 30 to holders of record June 16.

ERIE & PITTSBURGH.—87½¢, quarterly, payable June 10 to holders of record May 31.

NEW YORK, CHICAGO & ST. LOUIS.—50¢, quarterly, payable July 1 to holders of record May 27.

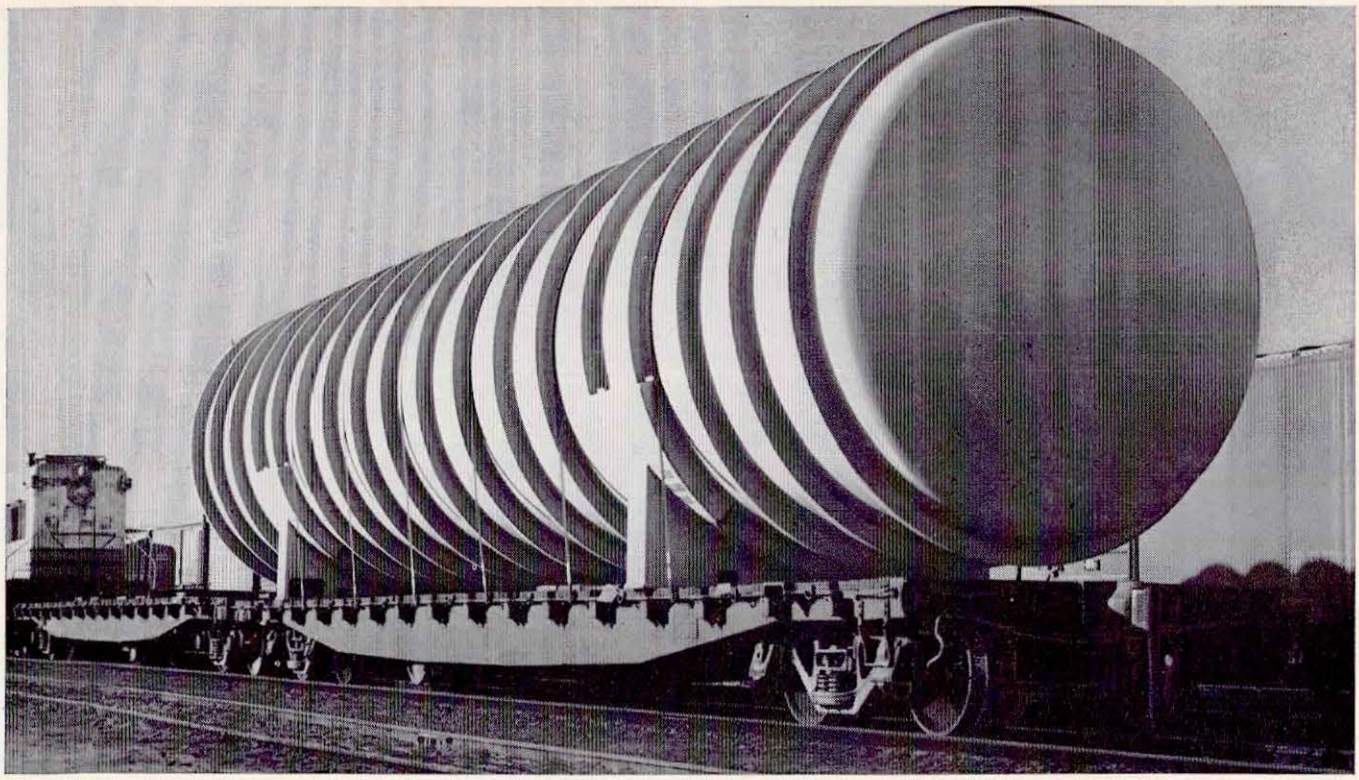
NEW YORK & HARLEM.—common, $2.50, semiannual; 10% preferred, $2.50, semiannual, both payable July 1 to holders of record June 15.

NORTH PENNSYLVANIA.—$1, quarterly, paid May 25 to holders of record May 18.

PITTSBURGH, YOUNGSTOWN & ASHTABULA.—7% preferred, $1.75, quarterly, payable June 1 to holders of record May 29.

SEABOARD AIR LINE.—50¢, quarterly, payable June 27 to holders of record June 17.

SOUTHERN.—70¢, quarterly from 1959 earnings, payable June 15 to holders of record May 13.

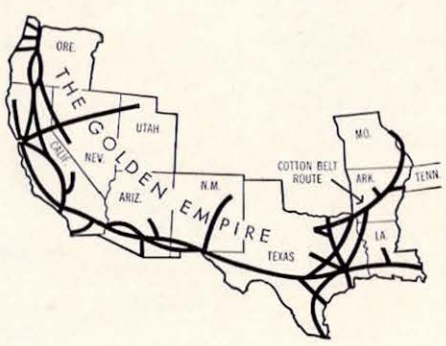


HIGHBALLING "LOX" TANK REACHES MISSILE SITE ON SCHEDULE

Size was no barrier to fast handling when S. P. rushed this giant liquid oxygen storage tank from St. Louis, Missouri, to Vandenberg Air Force Base, California. Our freight traffic experts, old hands with outsize shipments, plotted its trip to the hour, then checked its progress continually along the 2,500-mile route. It "highballed" across the Southwest to its destination in just under 100 hours—on time for installation by the U. S. Army Engineers.

This is a good example of how Southern Pacific's scheduled fast freights and experienced people can normally deliver oversize loads on the double, ready to stand inspection.

"Lox" tanks installed at Vandenberg Air Force Base missile site store liquid oxygen fuel for the Atlas ICBM, shown in background.



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MEET THE FOLKS

who sell our service

(One of a series)

OUR FT. SMITH AGENCY serves shippers at Sallisaw, Spiro, Panama, Poteau, Heavener and Bokoshe, Okla., and Mena and Waldron, Ark., on the KCS; and at the important off-line cities of Van Buren, Morrilton, Russellville, Clarksville, Alma, Ozark, Booneville, Mansfield, Greenwood, and Paris, Ark., and Keota and Stigler, Okla.

Ft. Smith, largest furniture manufacturing center west of the Mississippi, is in the midst of the Ozark, Ouachita and Kiamichi mountains — a fast-growing recreational area.

A diversified industry at Ft. Smith and roundabout includes lead and zinc smelting, glass and glassware, food processing, feed milling, lumber, paper, and clay products.

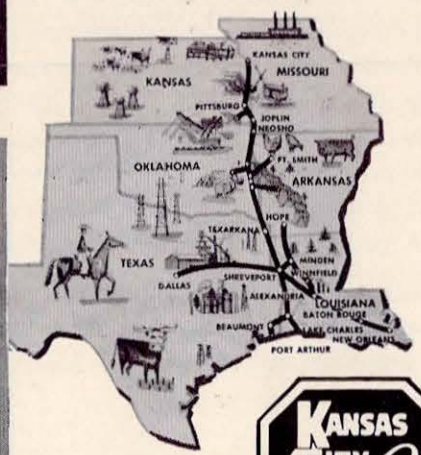
In the realm of agriculture, beef and dairy cattle, fruits and vegetables, poultry and cottonseed products are of major importance.

Coal, limestone and creosoted lumber and poles also are big business in the area—and we join "Gerry" Riggs in saying "Thank You!" to the many producers in our Ft. Smith territory for giving us opportunity to work with them through the years!

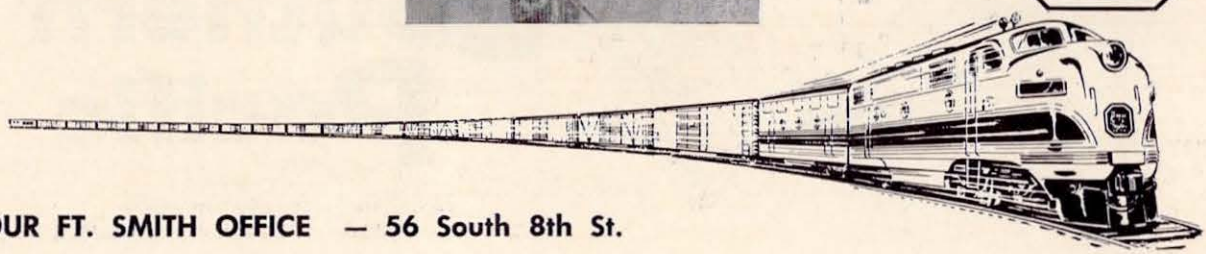
J. W. SCOTT
Vice President—Traffic
KANSAS CITY 5, MO.

GERALD E. RIGGS, Alabaman, was schooled at Birmingham, where he began work as a messenger, and later as a steno-clerk, for the L&N. His interest in traffic prompted completion of a Traffic Management course from LaSalle Extension University. He joined the L&A at Birmingham as steno-clerk in 1937 and, after consolidation of the KCS-L&A traffic departments, worked successively at Pittsburgh, Pa.—steno-clerk; Kansas City—secretary, then chief clerk; Chicago—chief clerk; Atlanta, Ga.—traveling freight agent. He has been general agent at Ft. Smith since 1953.

GRACE ADAY, secretary at Fort Smith since 1951, is a native Arkansan and received her education in the Fort Smith schools. A talented musician and artist, her principal hobbies are painting and photography.



KANSAS CITY SOUTHERN Lines



OUR FT. SMITH OFFICE — 56 South 8th St.

Mechanical, Electrical Meetings Open June 13

Southern Pacific president D. J. Russell will address a joint session of the AAR Mechanical Division and Electrical Section of the Engineering and Mechanical Divisions on June 14. The annual meetings of the two groups are to be held concurrently June 13-16, inclusive, at the Jack Tar Hotel, San Francisco.

D. W. Brosnan, Southern vice president—operations, will speak at the Mechanical Division meeting June 15, and Commissioner Everett Hutchinson of the ICC will address the June 16 session.

The Electrical Section will hear addresses by President G. B. Aydelott of the Denver & Rio Grande Western, and Dr. G. Wiens, chief director, locomotives and cars, German Federal Railways.

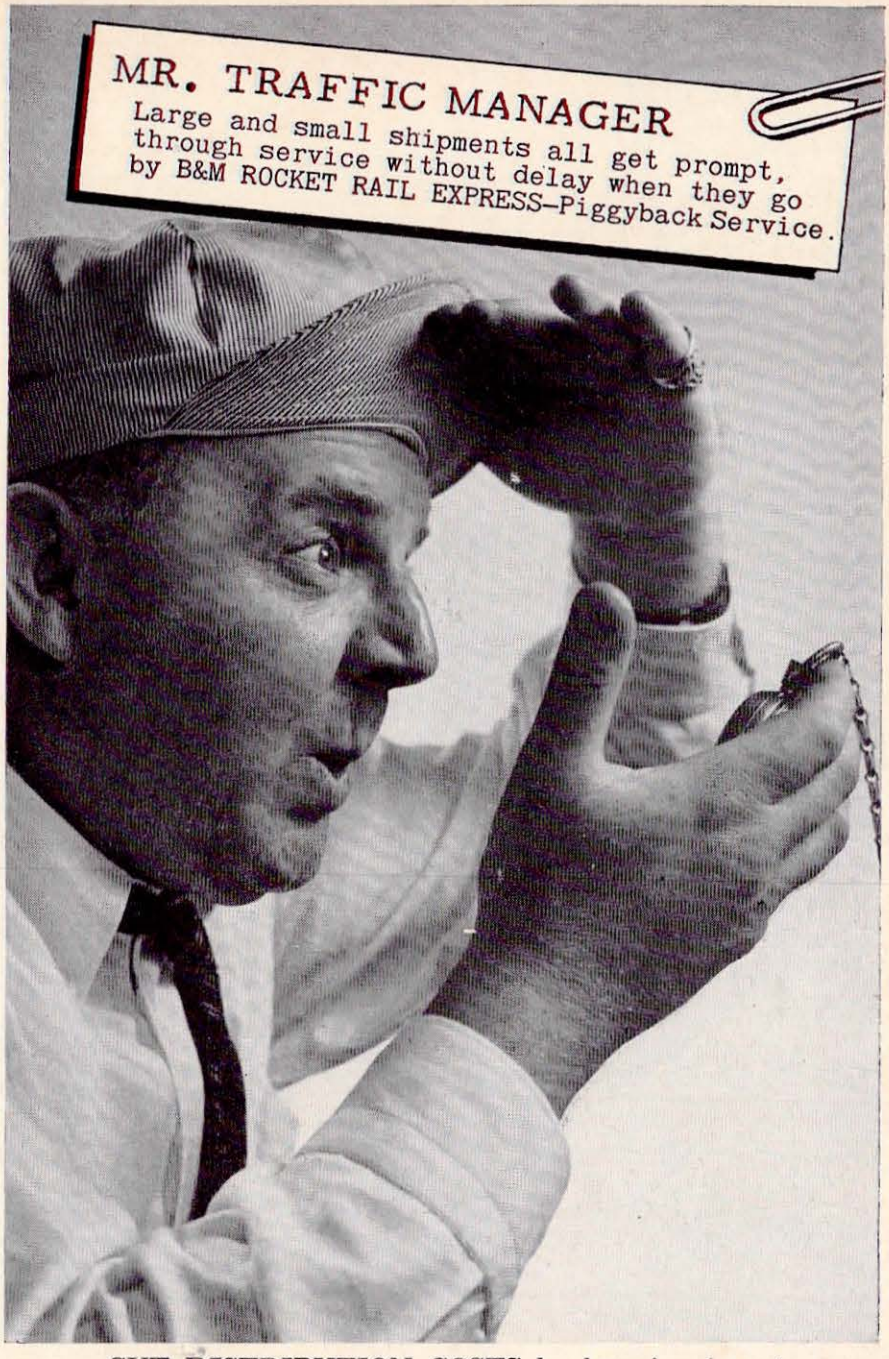
Canadian Rails Lose Out as Trucks, Pipe Lines Gain

Freight transportation performed by Canadian railroads—measured in terms of absolute ton-miles—more than doubled between 1939 and 1958. But in the same 20-yr period, Canada's total inter-city freight ton-mileage increased almost 2½ times—which means that the railroads (as in the United States) handled a smaller share of a larger total.

The foregoing conclusions are based on a preliminary report by the Dominion Bureau of Statistics which is, in turn, based on back estimates of truck ton-mileage over the two decades. The combination of actual and estimated figures is said, however, to provide the first reliable figures on estimated transport output in Canada.

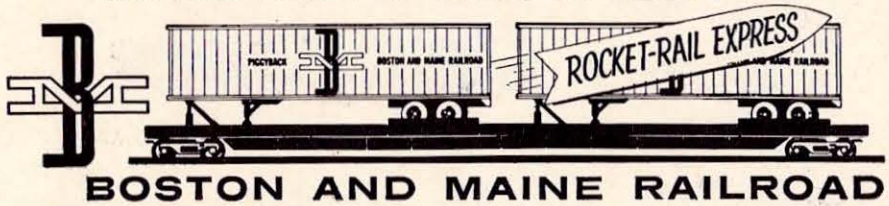
The bureau's report shows that, in 1939, railroads hauled 31,465,000,000 ton-miles—or 59.6% of the Canadian total. In the same year, water carriers handled 19,625,000,000 ton-miles, or 37.2% of the national total. Motor carriers accounted for the remaining 3.2% —1,670,000,000 ton-miles.

By 1958, railroad ton-mileage had more than doubled, to 66,357,000,000 ton-miles, but the railroads' "share" of the total had dropped to 52.3%. Water lines had shown a smaller—but still substantial—increase, to 29,457,000,000 ton-miles, but their proportion of the whole had declined to 23.2%. Trucks showed a major increase, to 14,078,000,000 ton-miles and 11.1% of the total. They were surpassed in growth, however, by pipe lines; non-existent in 1939, they carried 16,591,000,000 ton-miles, or 13.4% of Canada's total, in 1958. Air lines, even in the later year, were still below 1/10th of 1%.


MR. TRAFFIC MANAGER
Large and small shipments all get prompt, through service without delay when they go by B&M ROCKET RAIL EXPRESS–Piggyback Service.

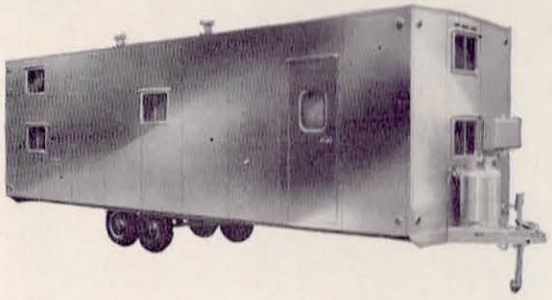
CUT DISTRIBUTION COSTS by lowering inventory requirements through faster distribution at lower costs. *B&M Rocket Rail Express* will enable you to make fast deliveries to mid-Western customers from your New England warehouses. *B&M Rocket Rail Express* provides daily service. Trailers handled by the B&M Monday night will be in Chicago or St. Louis early Wednesday morning and vice-versa.

For complete details on this fastest of all service call or write C. P. TOMM, General Sales Manager, PIGGYBACK, Boston and Maine Railroad, 150 Causeway Street, Boston, Mass.



BOSTON AND MAINE RAILROAD

Campcars put the work crew where the work is



. . . in comfort
. . . with economy

House your maintenance crews adjacent to the job — not miles away with a costly loss of payroll eaten up in transit. Campcars provide comfortable on-the-job living for from 2 to 50 men. What's more, they are ruggedly built for on- or off-highway travel, will give long years of service with no wallet-walloping overhead of their own. If you are out to save maintenance money and get jobs done faster, get the complete story of Campcars. Write International Car Division, 2485 Walden Avenue, Buffalo 25, N. Y.

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Campcars

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N. J. Senate Approves Railroad Contract Aid

Plans by New Jersey's Governor Robert Meyner and Highway Commissioner Dwight R. G. Palmer to purchase essential railroad suburban service passed their first obstacle last week. New Jersey's Senate, acting just before it recessed until September, passed and sent to the Assembly a plan to buy a year's continuation of commuter service for $6 million.

The Assembly, which is in recess until June 6, is expected to approve the bill. Before it recessed, it approved a $431,883,569 appropriation bill for 1960-1961, an amount which included $6,000,000 that could be earmarked for commuter aid.

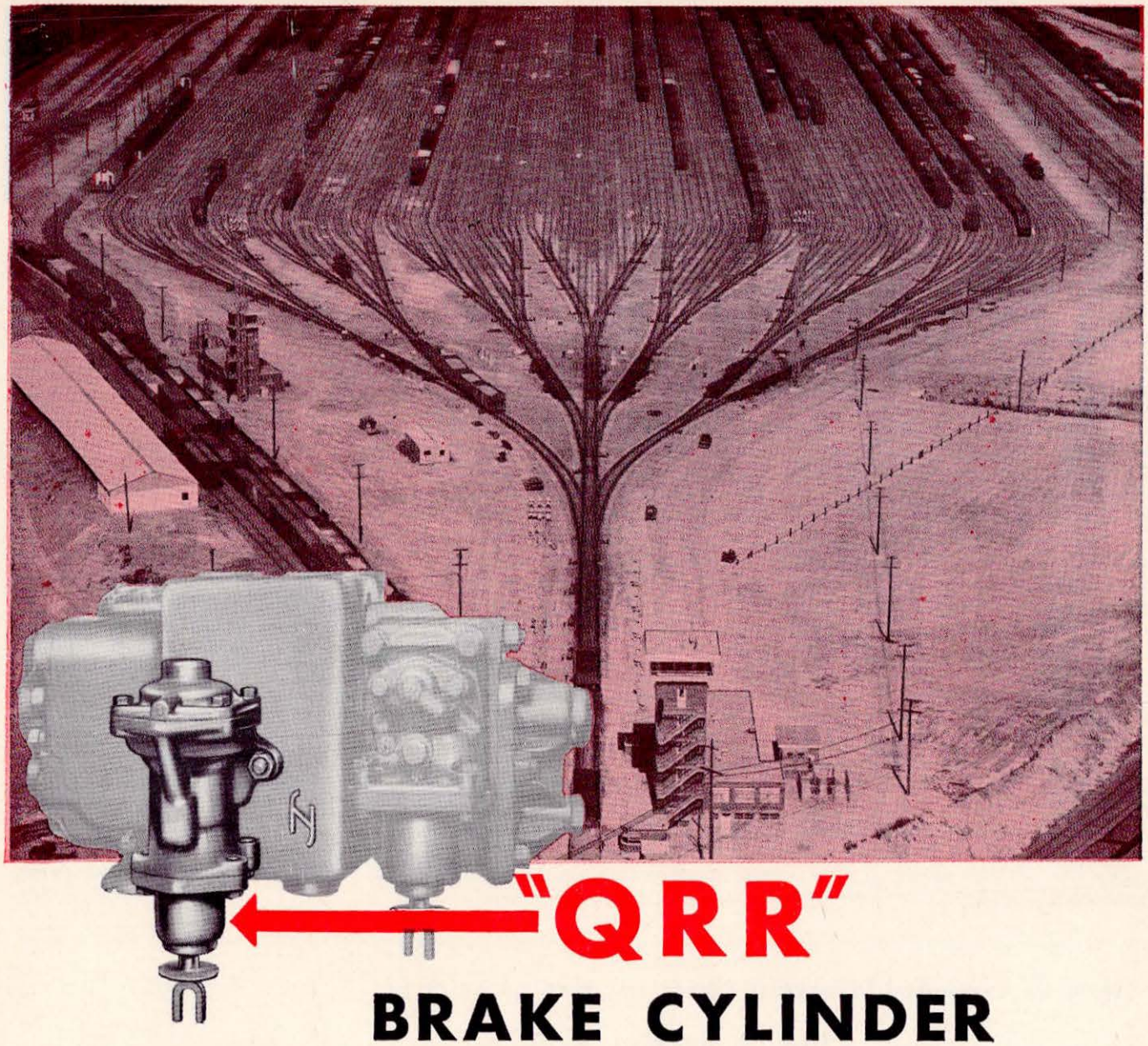
Governor Meyner's approval of the measure is almost a foregone conclusion, since the plan was developed in his administration by the Division of Railroad Transportation (RA, April 11, p. 36). New Jersey Highway Commissioner Palmer, whose department includes the Division of Railroad Transportation, has described the plan as "a temporary step to maintain operations while a long-range solution is worked out."

Major provision of the Senate bill permits Commissioner Palmer to sign a contract with any of the nine railroads providing suburban service in the state (PRR, DL&W, JCL, Erie, PRSL, NJ&NY, NYS&W, LV, Reading). Railroad signers will be asked to continue certain suburban services and fares unchanged during the one-year contract period.

SP Uses Radio Repeaters For Better Coverage

The Southern Pacific will set up two radio repeater stations on a 9,000-ft high ridge of Mt. Lemmon north of Tucson, Ariz. One station will provide instant communication for trains in the area roughly between Maricopa and the New Mexico border. The other will allow supervisors in radio-equipped automobiles to keep in touch with what's going on.

SP is presently using radios in Tucson, Phoenix, Tolleson, Mesa, Gila, Casa Grande, Willcox and Yuma, but coverage is generally limited to a radius of about 15 miles. Tests indicate the new stations will permit radio coverage to trains and highway mobile units from Estrella, 23 miles west of Maricopa, and from Phoenix all the way east to Steins, N.M., 4 miles east of the state line. Recently SP cut in a special station at Tucson's 22nd Street yard, this one allowing car inspectors to give quick reports over walkie-talkie sets.



"QRR"

BRAKE CYLINDER RELEASE VALVE

Modern classification yard economies can be augmented by the use of "QRR" Brake Cylinder Release Valves—the *proven* design authorized by the A.A.R. for *unlimited* applications.

After being tripped, the "QRR" Brake Cylinder Release Valve automatically takes over to "bleed" the brake cylinder on incoming cars without requiring the operator to hold the release valve open. This operation retains the air in the auxiliary and emergency reservoirs so that the average newly made-up outgoing train can be charged in less than half the usual time.

Get full information on this proven design . . . *WRITE TODAY!*

THE NEW YORK AIR BRAKE COMPANY

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Industrial Development Pays Off

► **The Story at a Glance: Railroads spend more than all other private industry combined—and two-thirds as much as all public agencies—to promote the economic welfare of the territories in which they operate. The money gives every evidence of being well spent, whether measured in terms of on-line industries located or expanded, or of traffic gained or held against diversion.**

In 1957—last year for which complete figures are available—railroads spent an estimated $65 million on one of their least publicized but most productive activities, the industrial and agricultural development of the areas they serve.

In 1959—with only partial figures available—similar expenditures resulted in location on lines of selected Class I railroads alone of 3,787 new industrial plants or warehouses; expansion of at least 1,377 others.

The 1957 figures come from "A Survey of Area Development Programs in the United States," just published by the Committee for Economic Development.

The survey puts total 1957 expenditures for area development at $219,780,000—$126,751,000 privately financed; $93,029,000 publicly financed. The railroads' $65 million, representing nearly 30% of the over-all total, far outstripped spending by any other single agency, either private or public.

Railroads, in fact, spent eight times as much as the second most active industry, public utilities ($8,004,000); nearly 12 times as much as all their air, highway and water competitors ($5,607,000). They spent more than two-thirds as much as all publicly financed development agencies, and nearly half again as much as all privately financed, non-industrial agencies, such as chambers of commerce and the like.

By objective, exactly three-quarters of all railroad funds went for development of industry. Only 3% was assigned to agricultural development—a possibly significant measure of the United States' rapid changeover from an agricultural to an industrial economy. Of the remainder, 10% was spent for development of forests and minerals, including coal; 9% for encouragement of tourist travel; and 3% for other purposes.

By type of activity, 56% of railroad development funds were spent to acquire and improve real estate for industrial purposes; 19% went toward general promotion, and the remaining 25% for other purposes, including research, compilation of statistics, planning, zoning, assembly of information, and financial assistance to other development groups. Any future increase in available development funds would probably go, the CED survey says, to "site acquisition and improvement."

Such "direct action," the report adds, not only indicates the increasing importance of industry (compared with agriculture) as a source of rail traffic, but "reflects the difficulties railroads have experienced in having suitable land set aside for industrial use, in getting land rezoned for industrial use, and in assembling suitable sites."

Because of these difficulties, "many railroads appear to have concluded that the only way of assuring suitable sites for industry is to provide the sites themselves." Such site acquisitions range from one per railroad to more than 300 for the most active company; acreage per railroad runs from 43 to 13,332. Figures on both scores probably would be larger if the carriers had more money to spend.

Personal contacts with industries seeking new locations appear to be the railroads' most effective technique in attracting industry; fundamental economic difficulties of their territories are their biggest obstacle; and proper planning of land use is their major problem. Most land use problems are apparently traceable to poor or non-existent planning or zoning, improper location of highways, or rising cost levels. Area economic difficulties, somewhat

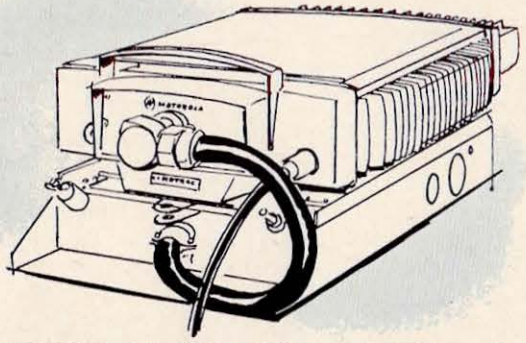
(*Continued on page 71*)

New or Expanded Industrial Plants Located on Lines of Selected Railroads, 1959

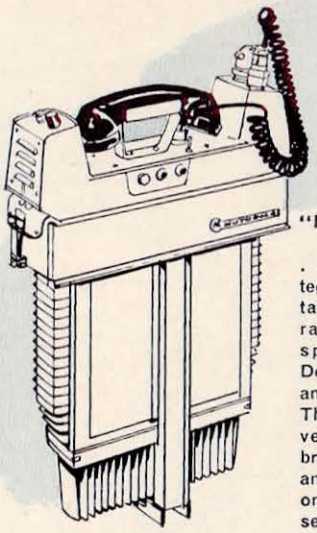
Railroad	New Industries	Expanded Industries
Atchison, Topeka & Santa Fe	389	227
Atlantic Coast Line	218	62
Baltimore & Ohio	157	30
Central of Georgia	44	NR
Chesapeake & Ohio	80	NR
Chicago, Burlington & Quincy	46	14
Chicago, Milwaukee, St. Paul & Pacific	153	134
Chicago, Rock Island & Pacific	279	267
Delaware, Lackawanna & Western	30	40
Erie	43	23
Florida East Coast	42	18
Great Northern	142	NR
Gulf, Mobile & Ohio	81	16
Illinois Central	110	NR
Lehigh Valley	40	NR
Louisville & Nashville	190	NR
Minneapolis & St. Louis	27	NR
Missouri Pacific	162	145
New Haven	107	NR
New York Central	298	96
Nickel Plate	30	NR
Norfolk Southern	15	7
Northern Pacific	100	56
Reading	32	NR
St. Louis-San Francisco	141	61
Soo Line	43	60
Southern	148	121
Southern Pacific	401	NR
Spokane, Portland & Seattle	28	NR
Union Pacific	164	NR
Wabash (incl. Ann Arbor)	47	NR
Total, U. S.	3,787	1,377
Canadian National	415	NR
Canadian Pacific	557	NR
Total, Canada	972	NR

NR—Not separately reported

CALL ON MOTOROLA... for all communication needs

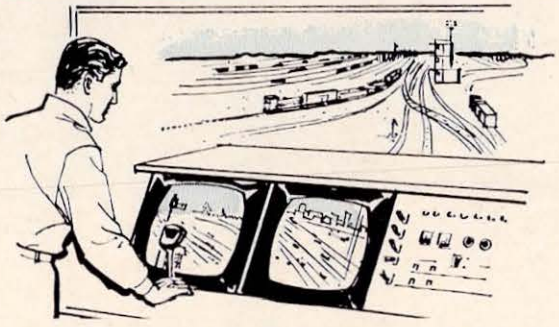


"MOTRAC" 64/12-VOLT RAILROAD RADIO . . . the only AAR single-package unit with completely transistorized receiver and power supply. No need to change power supply, one radio serves both 64 and 12-volt DC uses. Adapter available for 117-volt, 60 cycle base station operation without radio modification.

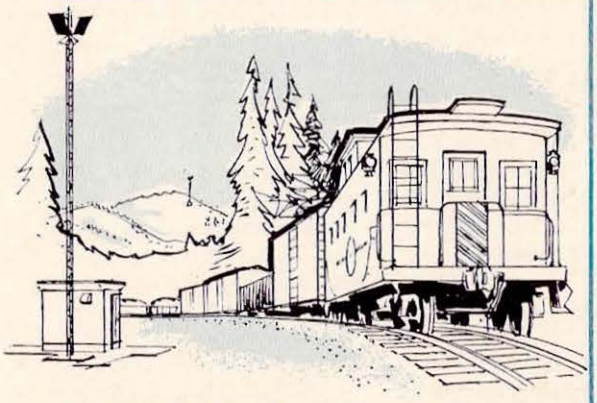


"MOTRAC" UNIVERSAL RAILROAD RADIO . . . the first completely integrated railroad radio—contains MOTRAC, 64/12-volt radio unit, handset, two speakers, and controls. Designed for diesel, caboose, and maintenance-of-way use. The complete unit is mounted vertically in a "T-frame" bracket. Only the "T-frame" and antenna remains mounted on the rolling stock when radio set is removed.

"HANDIE-TALKIE" PORTABLE RADIOPHONE . . . for yard, terminal and maintenance-of-way operations. Choose from 45 models designed to give highest power output and lowest possible weight. Available in mike and speaker or handset models with standard cells or rechargeable nickel-cadmium batteries.



CLOSED CIRCUIT TV MONITORING . . . for the ultimate in personalized control over yard and terminal operations. Now, you can monitor one or several operations from a single point. Full remote control provides flexible camera operation over wide areas.



MICROWAVE RELAY SYSTEMS . . . end wireline "saturation" problems. With **service-proved** Motorola microwave, you can handle all of your voice messages, with space to spare for telegraph, VHF 2-way radio, television, and present or proposed high speed data transmission links.

Motorola gives you MORE... in communications, service, satisfaction.

Quality design with service-proved performance is the foundation of Motorola leadership in railroad communications. With such continuing leadership achievements as MOTRAC Universal 64/12-Volt Railroad Radio backed by the widest range of audio and visual communications, you can call on Motorola with full confidence. Large and small, every Motorola system is custom designed to specific user requirements. You'll find Motorola equipment lasts longer, works better—therefore costs less to own and operate. Your Motorola representative will give you full facts and figures.

MOTOROLA RAILROAD COMMUNICATIONS

Motorola Communications & Electronics, Inc., 4501 Augusta Blvd., Chicago 51, Illinois, A Subsidiary of Motorola, Inc.

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INSULATION was installed in PFE car without complications; entire length of car is available for loading.

Nitrogen Keeps Loads Frozen

Transportation which would relieve railroads of responsibility for providing refrigeration equipment and service is being offered to volume producers of frozen foods.

Already, a Pacific Fruit Express car fitted out according to the new concept has completed one transcontinental trip (RA, April 4, p. 44).

The car moved from the Sunnyvale, Cal., plant of Libby, McNeil & Libby, with 43,128 lb of broccoli spears and 18,000 lb of chopped spinach. The car, loaded on March 23, was subjected to the special "Liquefreeze" process. On March 31, when the car was opened at Merchants Refrigeration Warehouse in New York City, the entire load averaged minus 124 degrees F.

During the eight days between California and New York, there had been no refrigeration nor icing of the car. Instead, the car had moved like an ordinary box car rather than as a reefer with a highly perishable load of food.

The heart of the new concept is a highly efficient insulation system making it possible to maintain extremely low temperatures for days. The temperatures are achieved by initially saturating frozen food loads with liquid nitrogen. As a liquid, nitrogen has a temperature of minus 320 degrees F. Nitrogen, which makes up 80% of the air, is usually an almost unwanted by-product of the production of liquid oxygen.

The new insulating concept, and the use of nitrogen which it makes possible, are patented by the Liquefreeze Company, a subsidiary of the steamship-operating Isbrandtsen Company.

'An Economical Method'

Isbrandtsen uses the method for moving frozen foods in containers from the U.S. to Bermuda and to Europe. It is used by the military for food shipments and, according to a report by one officer, "is now considered an economical method for frozen-food transport." Over-the-road and piggyback shipments in highway trailers have been completed successfully in the U.S.

Liquefreeze is offering to license the new system to frozen-food processors. The system, it is claimed, will permit complete elimination of railroad "icing" charges in freight bills covering movements of frozen products.

To be economically attractive, the process will require large volumes of liquid nitrogen. Liquefreeze proposes that the necessary air liquification plants be established adjacent to frozen-food processors' factories where there will be a large and steady demand for the nitrogen. Liquid nitrogen can then be utilized for the initial freezing of any food as well as for preparation of carloads of any food for subsequent rail movement.

The insulation, which Liquefreeze would license to railroads and private car operators, is composed of a series of springloaded plywood-faced polystyrene panels which make up the floors, walls, ceiling and ends of a car. There would be no bunkers or machinery compartment, so the entire car length would be revenue space.

The "floating" insulation which such spring loading produces is said to be superior to the present standard system. Today, insulation is attached to the car structure. Liquefreeze claims that contraction of the car body when a load is

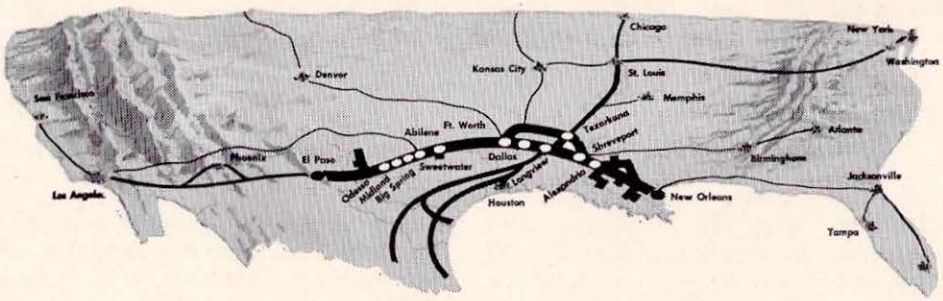
(*Continued on page 62*)

Slap the T&P Brand on your shipments

. . . and we'll ride herd on 'em and see that they arrive in prime shape and right on schedule. Fact is, we're old hands at rounding up new ways of handling your shipments faster and better, cheaper and safer. If you've got any troublesome transportation problems, just turn them over to your T & P sales representative and watch him pin them down in championship time. Put that T & P brand on your shipments and they will receive the kind of service that wins friends and influences people, specially customers.

Your energetic

TEXAS AND PACIFIC RY.



NITROGEN KEEPS LOADS FROZEN (*Continued from page 60*)

cooled, and the weaving as the car moves over the rails, opens up conventional insulations, causing the lading temperature to rise.

In the Liquefreeze design, only the panels around the doorways are fixed. Coil springs at the car ends keep the series of interlocked panels under constant pressure. The polystyrene does not absorb water. Such absorption can reduce insulating ability and increase the non-revenue weight of a car.

In converting the PFE car to the new system, Liquefreeze panels were installed inside the original lading space after the bunkers were removed. This was done because it was impractical and too expensive to strip the old wood-sheathed car. In the future, it is predicted, Liquefreeze panels can be placed inside a structural body framework without any exterior sheathing. Conventional box cars could also be converted for Liquefreeze service without much sacrifice of lading space.

Liquefreeze developed a ceiling-mounted pipe loop which has a series of holes that distribute the liquid nitrogen through the load. Initial difficulties that interfered with uniform cooling of the corners and top of one test cargo were corrected with a revised spray pattern.

Any substance which exists as a gas at normal temperatures will return to the gaseous state as it warms up from its low-temperature liquid state. Because this change involves a tremendous increase in volume, it is necessary to equip the car with a series of vents.

In the Sunnyvale-New York run, the lading was cooled to a temperature much lower than would normally be the case. This was done to show the capabilities of the process.

In normal usage a shipper would determine the transit time from the railroads, and then cool to a temperature which would allow lading to warm to the minus 20-degree F range by the time it reached its destination.

All phases of the frozen food industry and its transportation agencies could be affected if Liquefreeze should win wide acceptance. It provides a means for initial freeze down, also for transportation of foods at temperatures stipulated under the code of the Association of Food and Drug Officials of the United States. Major refrigerator car operators are already studying the system and its possible effects on their operations and equipment.

Railroading After Hours with Jim Lynch

ASSETS OR LIABILITIES?—I see where one of the barge operators is playing little—comparing his modest net assets to those of neighboring railroads, which seem gigantic in such comparisons. The difference, of course, is that the railroads provide and maintain their roadway—an "asset" of billions that it takes millions each year to maintain and renew and pay taxes on. The bargeman gets the equivalent of this large investment, for free, at the taxpayers' expense.

The alleged superior "assets" of the railroads in a competitive situation like this are actually liabilites. What counts in measuring competitive strength is net income in relation to investment—and there are mighty few barge lines whose figures I've seen that aren't earning two or three times as much on their investment as railroads are.

Any big business (such as the barge business) can be made to look puny, if the federal government provides its fixed plant.

WORKING WITH THE PROFS—R. L. Rivers, who teaches traffic management at the University of Massachusetts, joins several other college teachers of transportation in testifying that relations at his institution with the local railroads are "extremely satisfactory." In this particular area, the Railroad Community Committee for the Connecticut river valley seems to be providing effective liaison between the industry and the academic people.

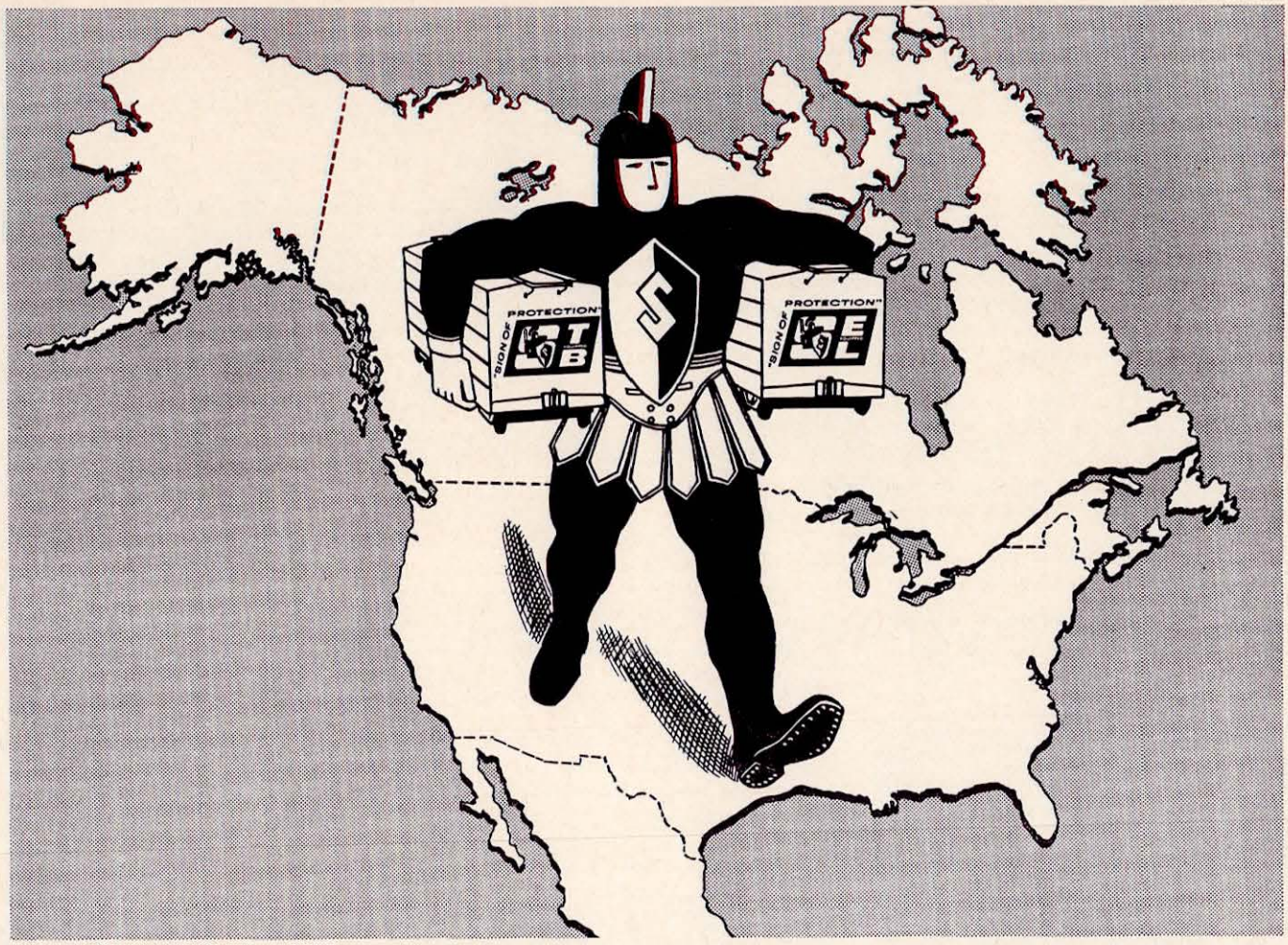
WHICH WAY IS PROGRESS?—While "double bottom" trucks seem to be spreading on America's turnpikes, in Europe the trend is in the opposite direction. Roger Hutter, general research manager of the French Railways, advises that Germany was the only country in Europe which had permitted double trailers on the highways; and it has now prohibited them by law.

The question seems to be, largely, one of whether the highway system is provided primarily for the convenience of heavy-duty, long-haul freight traffic—or whether it is built for the average user. The fact is that by far the greater volume of highway traffic is short haul and light loads (either freight or passenger); and the short hauls and light loads pay most of the bills too.

POLLEN FROM OTHER PLANTS—Most annual meetings of railroad organizations are, in reality, conferences at which specialists in some phase or another of railroad work exchange experiences with each other. An exception to this rule is the Railway Public Relations Association—where a large part of the program is given over to listening to speakers outside the field of railroad information service.

For example, I have before me the program for the June 6-8 annual meeting, and note that addresses are scheduled by no less than 8 "outsiders," including leaders in other departments of railroading, the editor of a leading daily newspaper, a specialist in management education, and the economist of the U.S. Chamber of Commerce. One of the program committee members said: "We practice the principle of cross-fertilization."

'ORE JENNY'—J. H. Cairns, assistant manager of the Pennsy's coal traffic department, wants to know where the term "ore jenny" originated. A couple of my colleagues advise (but maybe they are only guessing) that the name "jenny" originally was applied to any mine car and came from the nickname of the type of animals originally used for motive power. Anybody got any better answer?



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Whether you are shipping North—South—East or West, there is a Sparton man as close as your telephone to counsel—to advise—to assist in the proper use of your Sparton equipped railroad freight car.

And, your Sparton car—whether it be a STB (Sparton Tri-Belt) or an SEL (Sparton Easy-Loader)—is the safest way to ship. These cars deliver more salable merchandise; make for greater shipper satisfaction; keep more merchants happy.

Each car in its own way offers economies in loading and unloading and reduces damage claims to the vanishing point.

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Let your "Sparton Man" show you how you can get your greatest return on your next Sparton car—STB or SEL equipped.

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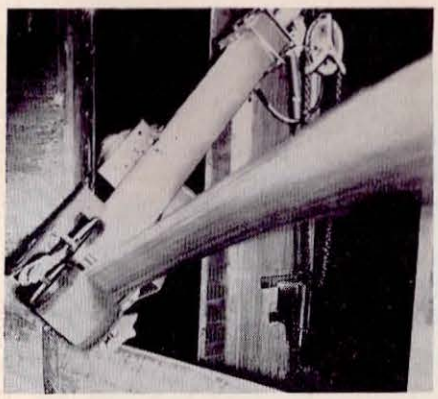
New Products Report



Grain Loaders

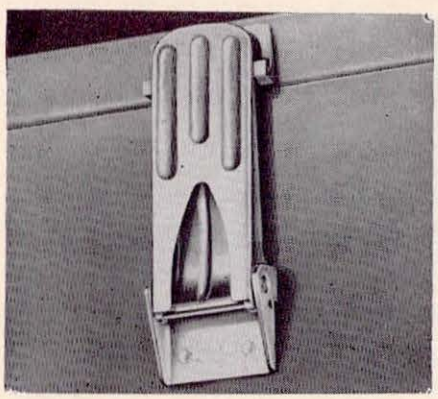
"Standard Duty" and "Hi-Type" Swiveloaders fill and trim box cars quickly without exposing their operators to dust hazards. The "Standard unit," wall or structurally mounted, can be controlled from outside the car. The "Hi-Type" unit, although operating on the same principle, is designed to be swung easily over three 20-in.-high grain doors. *Stephens-Adamson Mfg. Co., Dept. RA, Bulletin 854, Ridgeway Ave., Aurora, Ill.*

Mobile Loading Ramp

A new series of mobile loading ramps feature heavy-duty grating surfaces, self-cleaning, and designed to eliminate build-up of snow, ice, mud, oil, grease, etc. Serrated tracks set into the grating provide positive wheel traction in varying tread widths to meet power requirements. Curbs prevent run-off and hydraulic lift permits easy positioning. *Magline, Inc., Dept. RA, 1900 Mercer St., Pinconning, Mich.*

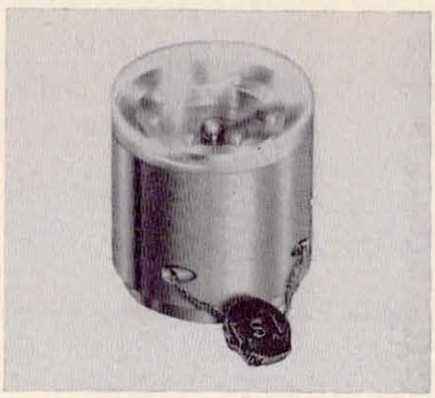
Puncture-Proof Tires

Puncture-proof tires for yard lift trucks are said to ride safely over rails, nails, or other damaging objects likely to be found in railroad or industrial freight yards. They are made of specially-developed rubber wedges laminated into one solid, resilient, non-skid tire, which the maker claims will last much longer under hazardous conditions than ordinary tires. *Notat Tire Co., Dept. RA, 1504 East 34th St., Chattanooga, Tenn.*



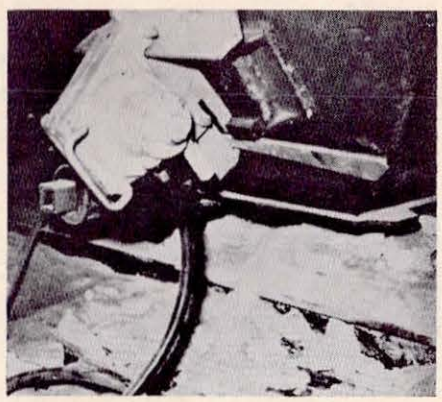
Container Latch

Container latch 46L has an ultimate tension limit of 1,000 lb. It is for use on reusable shipping cases, transit cases, large component assemblies, and in similar steel, aluminum and fibre container applications. The design eliminates the possibility of the latch springing open due to movement of the container sections caused by shock, vibration, buckling, or misalinement. *Camlock Fastener Corp., Dept. RA, 22 Spring Valley Road, Paramus, N.J.*



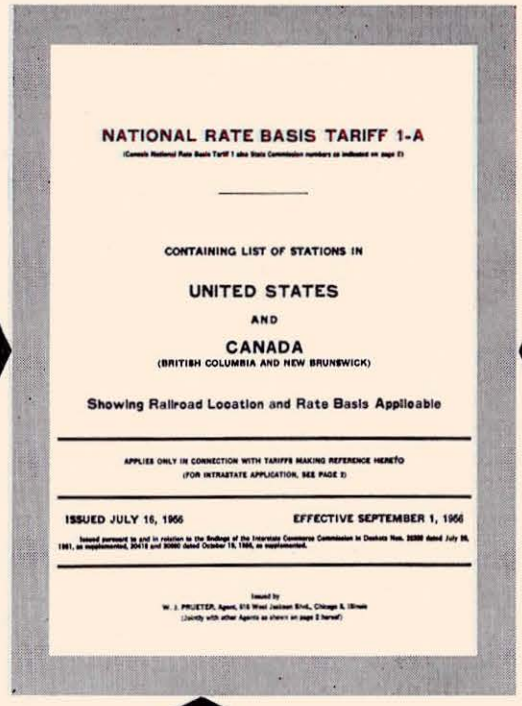
Magnetic Shock Detection

A simple shock detection system for delicate shipments utilizes a highly sensitive indicating ball positioned in a magnetic field. A greater-than-allowable shock dislodges the ball and traps it against the edge of its container, from which it can be moved only by breaking a seal. Two or three such indicators will give evidence of shocks from all directions. *Inertia Switch, Inc., Dept. RA, 311 West 43rd St., New York 36.*



Vibrator Mount

A locking wedge mount for rotary vibrators is designed to engage securely on hopper car chutes. The manufacturer claims that the new 25-lb mount assures better transmission of vibration, eliminates problem of "creep-out", and avoids possibility of damage to cars or vibrators resulting from use of heavy hammers to install or remove old-style vibrator mounts. *Martin Engineering Co., Dept RA, Neponset, Ill.*


NATIONAL RATE BASIS TARIFF 1-A
CONTAINING LIST OF STATIONS IN
UNITED STATES
AND
CANADA
(BRITISH COLUMBIA AND NEW BRUNSWICK)
Showing Railroad Location and Rate Basis Applicable
APPLIES ONLY IN CONNECTION WITH TARIFFS MAKING REFERENCE HERETO
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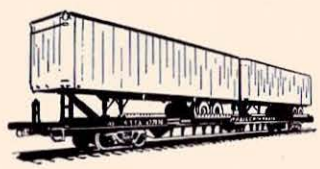
Nothing could be more factual, and more impersonal, than a freight tariff. It offers standard rates and a choice of routes, and no matter which way you ship, you're assured that your freight will move via the world's finest network of rail transportation!

But there are other considerations not set forth in cold figures. Time after time, shippers route "S.A.L." because of what does *not* appear in the tariff — the high quality of Seaboard service and the friendly, personalized interest taken in each shipment.

Transportation is our business, and we know that *repeat* shipments earned by providing thoroughly satisfactory service is the *best kind of business.*



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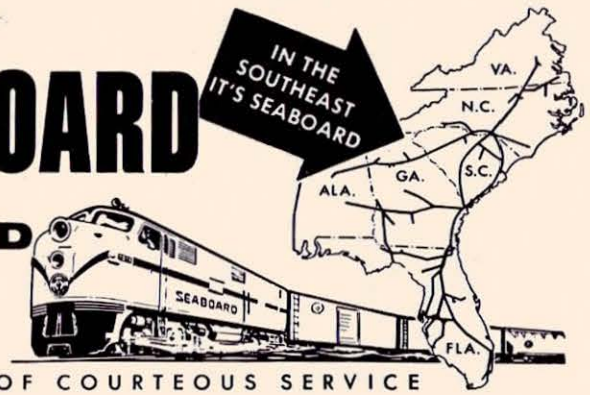
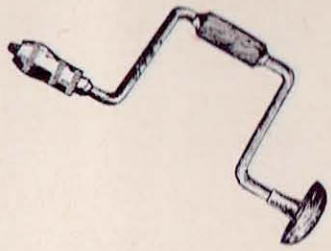
AIR LINE
RAILROAD

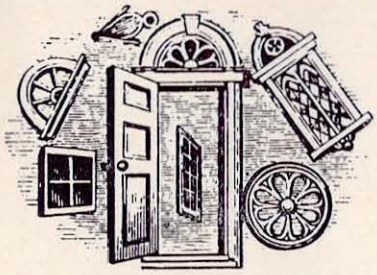


THE ROUTE OF COURTEOUS SERVICE



For shipping drills

or dills



or window sills

The better way is Santa Fe

No matter what you ship call the nearest Santa Fe Traffic Office and let the longest railroad in the U.S.A. go to work for you.

Santa Fe

Letters from Readers

More from Mr. King

Washington, D.C.

To the Editor:

I have read with interest your edition of April 25 in which you quote (p. 28) from a report I made to our president some comments on European railroads following my recent visit to Europe.

I am afraid some readers may have reached the conclusion that in a general way I was rather critical of European railroads. As a matter of fact, I hold the view that, considering the devastation that was wrought upon them during World War II and the hardships they have encountered since, they have recovered remarkably fast in the sense of improved roadway, equipment and service with many fine innovations which have not been adopted in this country. Of course, much of the equipment is old and should be replaced, but, for that matter, the same could be said of equipment here in the United States.

I found the service and cuisine excellent, and the crews of European railroads demonstrated a courteous and helpful attitude toward the traveler unable to speak European languages.

W. Mason King
Vice President—Traffic
Southern Railway

Likes U. S. Freight Ads

Utrecht, Netherlands

To the Editor:

I am an avid reader of Railway Age, which, in my company, is one of the best read foreign magazines.

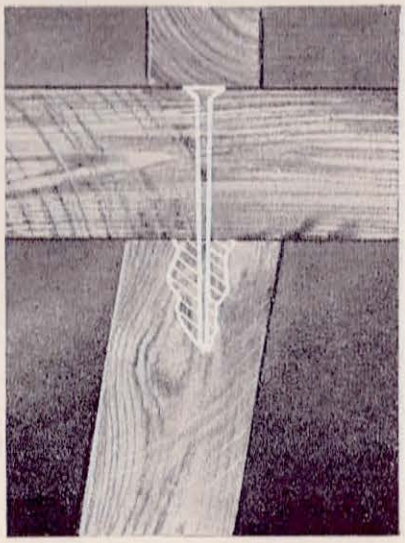
The Netherlands Railways, Ltd. (3,227 km; personnel, 32,700) enjoy rate-making freedom for freight traffic. Roughly, 60% of our earnings come from passenger traffic; 40% from freight. In this country, small distances (from the world's second largest port, Rotterdam, to the German frontier is only 176 km [110 mis]) and a dense net of waterways (navigable for ships up to 1,200 tons), make for sharp competition between the railroad and both trucking and inland navigation. Nevertheless, since the second world war's end, we have managed to make (small) yearly profits. Our capital stock is governmentally owned.

The thing that attracts me most in Railway Age is the advanced way the American railroads advertise their services. I would like to exchange advertising booklets and other literature with American railways.

G. Hupkes
Netherlands Railways

TROUBLE AHEAD

DRIFT PIN A-DRIFT



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The area surrounding drift pins and bolt holes is only one of the many possible decay spots which are hazards to the safety and service of timber bridges and trestles — and which can lead to costly replacements. And there's one best way to solve all these problems — OSMOSE Bridge Inspection and Treatment!

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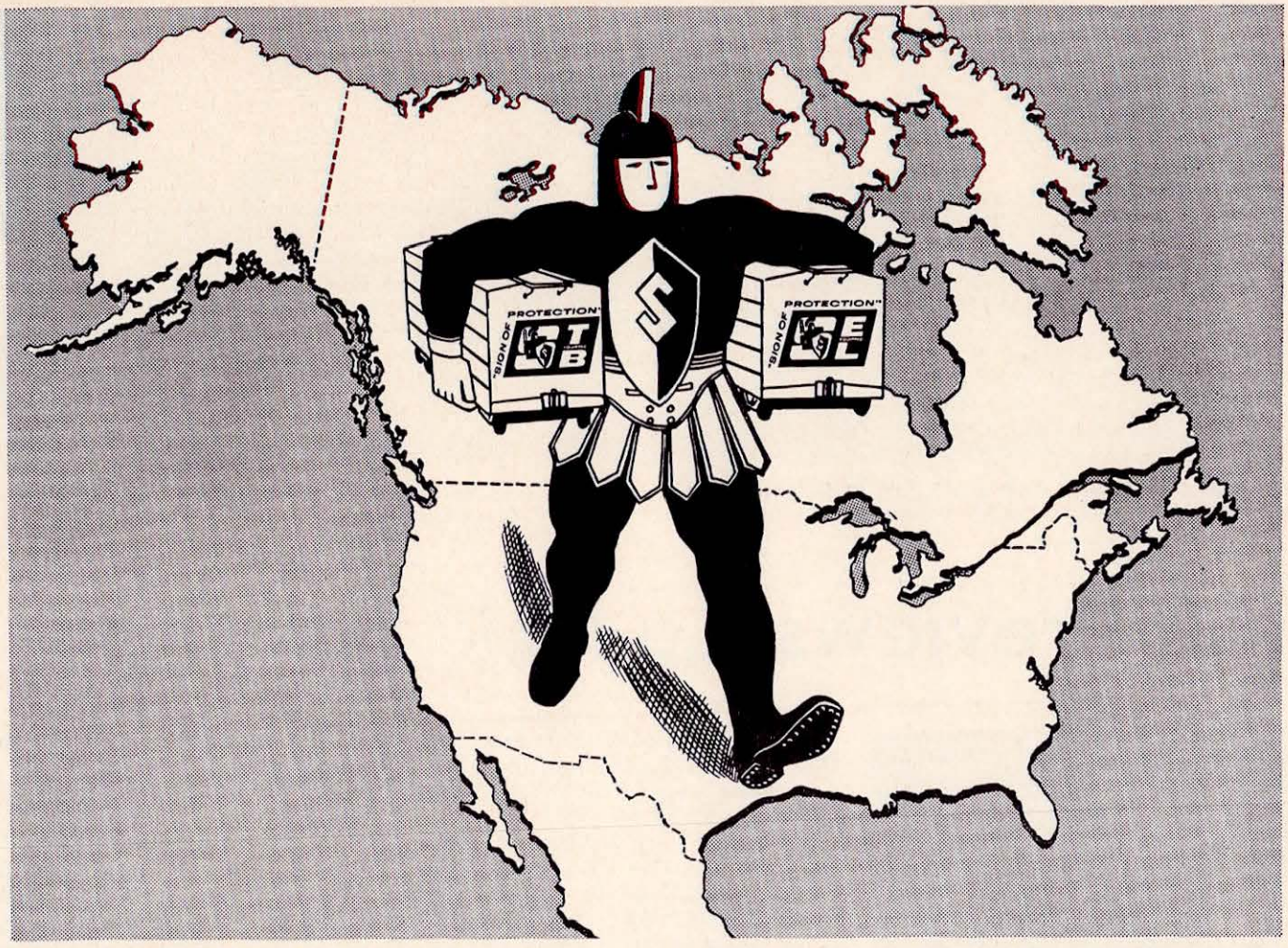

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Whether you are shipping North—South—East or West, there is a Sparton man as close as your telephone to counsel—to advise—to assist in the proper use of your Sparton equipped railroad freight car.

And, your Sparton car—whether it be a STB (Sparton Tri-Belt) or an SEL (Sparton Easy-Loader)—is the safest way to ship. These cars deliver more salable merchandise; make for greater shipper satisfaction; keep more merchants happy.

Each car in its own way offers economies in loading and unloading and reduces damage claims to the vanishing point.

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Let your "Sparton Man" show you how you can get your greatest return on your next Sparton car—STB or SEL equipped.

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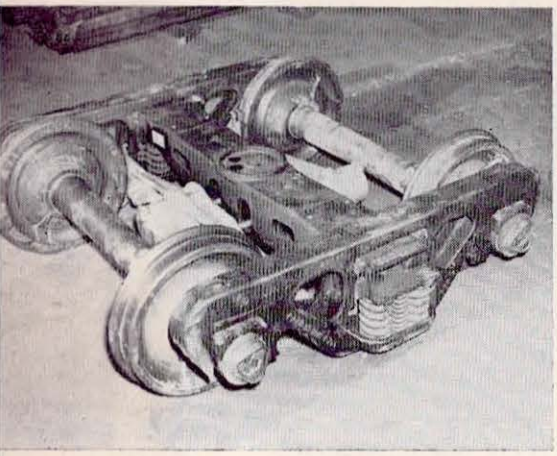
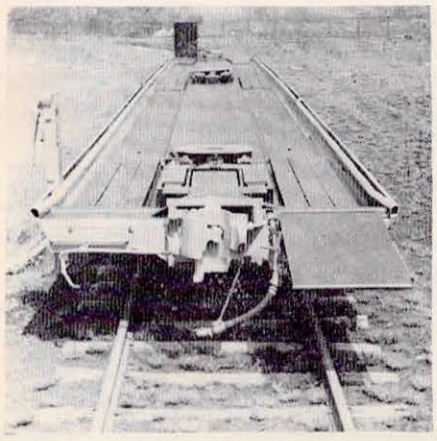
Specialists in the prevention of damage to goods in transit

FLOOR OF LO-DEK CAR stands just 31 inches above top of rail at point where trailer wheels rest. Lo-Dek will be available by purchase or on service lease from Transport Leasing Company.

P-S Previews 'Lo-Dek' Flat Car



CAR IS EQUIPPED with special-design ASF trucks with 28-in wheels.



NEW DESIGN P-S hitch straddles raised portion of sill which permits positioning of coupler at standard height. Slight inclines are provided at car ends for transfer of trailers between Lo-Dek and standard cars.

Pullman-Standard thinks its new "Lo-Dek" flat car will go a long way toward meeting the specifications for standardization of piggyback equipment.

The car will carry trailers of all types. It'll be equipped to handle containers as well, interchangeably and without equipment modification. Lo-Dek's floor is just 31 inches from top of rail, so the car will accommodate 13½-ft-high trailers without clearance problems. In addition, the design makes for efficient terminal operations; economical construction and maintenance; and compatibility with most TOFC equipment now in use.

(These specifications, P-S points out, are those proposed as "six ways to a standard piggyback car" by John E. Wightman, general manager of Trailer Train, in the April 18 Railway Age, p. 48.)

Among the features of the new car:

- Floor height of 31 inches makes Lo-Dek 10½ inches lower than the standard P-S 85-ft flat at the point where trailer wheels rest. P-S says the design will eliminate clearance problems with 12½-ft trailers and auto transports, will enable railroads to expand operations with 13½-ft units, a size permitted in an increasing number of states.
- Lo-Dek empty weight, 49,000 lb, is about 30% under the weight of the present 85-ft flat. Capacity of the car is 130,000 lb, with a load limit of 179,000 lb.
- Trucks are a special ASF design, equipped with 28-inch wheels, Cobra shoes, Timken 6 by 11 roller bearings and WABCOPAC brakes. P-S will maintain an inventory of the 28-inch wheels for the convenience of roads using the car.
- The trailer hitch is a new design P-S stanchion.
- The car is 88 ft in length ovet strikers, with truck centers 62 ft apart. P-S says the unit meets all interchange rules and AAR clearance requirements, up to and including a 13-degree curve.
- Slight inclines are built on the deck at the car ends to facilitate movement of trailers between the low-slung car and adjacent piggyback flats of conventional (41½-inch) floor height. Couplers are positioned at standard height.

Lo-Dek will be one of the major items in a coordinated transportation package to be shown by P-S at the Railway Electrical and Mechanical Supply Association exhibit to be held in conjunction with the AAR Mechanical Division and Electrical Section meeting in San Francisco June 13-16.

Other components of the package: A PS-4PB flat car equipped with Protectoframe-20 cushion container cradle and carrying a 37-ft refrigerated container and a Trailmobile high-cube LCL trailer; a new design Hydroframe-60 "skeleton" car intended specifically for container service.

A new mobile crane, the Trans-Trailer, built for Matson Lines by Pacific Coast Engineering Company, will be used to demonstrate handling of Matson container equipment on the Hydroframe-60 car.

The P-S exhibit also will include a WP box car equipped with Hydroframe-60 cushion underframe; and a C&O insulated box car equipped with new P-S Compartmentizer gates.

Missouri Pacific men know Bill Boris is always ready to lend a hand

Oil samples get an inspection from Missouri-Pacific's L. R. Christy, chief mechanical officer; H. M. Hoffmeister, general purchasing agent; Standard's Bill Boris; and O. L. Hope, assistant chief mechanical officer.

Missouri Pacific men know from experience that Standard Oil's Bill Boris gives them fast action and the right answers to their questions on diesel fuel and diesel lubrication. These MoPac men have found that Bill Boris' recommendations can be depended upon because Bill has the training and experience required for such work. Bill has a degree in mechanical engineering from Purdue and has been in railway sales and service work for 13 years. He has another four years' experience in Standard's research laboratory working on diesel fuels and lube oils. Bill has also completed the Standard Oil Sales Engineering School.

Bill Boris and other men of similar experience are continuously in the field appraising and evaluating diesel fuel and lubricant performance. They bring these data to the attention of Standard's research and manufacturing people as a means of helping customers get the best petroleum products it is possible to provide. Standard's railway sales specialists also act as the liaison between railroad customers and the marketing, supply, transportation and other departments of Standard. These men know railroad problems and know how to interpret the problems to Standard's management.

Standard Oil men with experience serving railroads are ready to serve *you* anywhere in the 15 Midwest or Rocky Mountain states. For their help, write or call Railway Sales Department, **Standard Oil Company (Indiana), 910 South Michigan Avenue, Chicago 80, Illinois.**

You expect more from **STANDARD** *and you get it!*

AIR FREIGHT SEEN SURE TO GROW (*Continued from page 13*)

Tung Sol Electric, Inc., Newark, N.J., "is virtually unlimited." He "anticipates" that lower future rates will change the present high-cost situation which "justifies air freight routings only in emergency-type situations"; and goes on to say: "The *total distribution cost concept* [italics supplied] is the air lines' best selling tool, but is one that few companies, including most air lines, fully understand. When fully developed and sold, with lower rates and improved service to feeder line and off-line points, the majority of long-haul traffic rated first class or higher (and possibly lower) should move via air."

Mr. Hensley's near neighbor, D. M. Daly, director of traffic for Bristol-Myers Co., Hillside, N. J., expresses substantial agreement:

"Over the past decade, air freight rates have constantly moved downward, while surface transportation rates have moved in the reverse direction. They have already met on much high-value, high-rated traffic, and are only a few dollars per cwt apart on commodities rated as low as Class 70 in the Official Classification.

"Since March 1 it has been possible to move a 10,000-lb shipment by air from Newark to Los Angeles at $11.20 per cwt. The rate on Class 70 freight by rail or motor is approximately $8.50 per cwt in truckload or carload lots, with a higher rate or charge assessed on a 10,000-lb shipment. Obviously, the air lines do not have to reach much lower before they become very serious competitors on all commodities rated in or around Class 70.

"Actually, air freight rates do not have to meet surface rates. The factors of inventory reduction, warehouse elimination, reduced packaging requirements and elimination of obsolescence will more than offset an appreciable differential. It is entirely conceivable, and we believe inevitable, that by the end of this decade the air lines will be competing very seriously for commodities rated as low as Class 40 in the Official Classification.

"It is interesting to note that, of the 10,726 items listed in the Classification, 6,217 carry ratings of Class 45 or higher. When the air lines start competing for freight at the Class 45 level, the long-line motor and rail carriers will begin to realize that, instead of draining one another's strength and resources in constant rate fights, they might well have been improving their technologies . . . to meet the threat."

In some cases, the "threat" is apparently already here, or extremely close. For example, R. E. Vantine, traffic manager for Bloomingdale Bros., New York, points out that "many industries—especially retailing—no longer use air routings just for 'rush' or emergency deliveries. Air freight has become standard procedure."

Enlarging on this, he writes that "commercial aviation offers the greatest promise in progress for cargo and passengers in contrast to other modes of transportation. In some instances, air freight costs are competitive with, and even lower than, ground transportation, coupled with less restrictive packing and greater freedom from loss and damage.

"Within the next decade, the 'breakthrough' of jet commerce will introduce to business throughout the world a tremendous speed-up of freight and passenger traffic alike, and may revolutionize the concept of trade."

Other businesses which have become regular users of air freight are cited by H. A. Archambo, director of the Minneapolis Traffic Association; they include "drugs, flowers and other highly perishable items." Several of our industries," he adds, "find air freight is the only means of meeting the demand for equipment which is ordered to replace a part to prevent work stoppage. They also find that initial shipments must be on hand at the distributor's plant for display in advance of regular stock orders."

Air freight, however, still has some problems to overcome, and its competitive impact on surface transport may be affected by what it does about them. One is the existence, or at least suspicion, of subsidy.

"Air service has a future, but it should stand on its own feet and not rely on tax-obtained funds to operate profitably or even to survive," says W. G. Koplin, traffic manager of the Salt Lake Hardware Co.

Other problems, according to J. B. Hedges, traffic manager for the Manufacturers Association of Connecticut, West Hartford, are the tendency "to fit freight in around passengers and mail"; and the lack of "a fully-trained body of experts to handle air freight." These, he suggests, may be overcome by "new equipment really designed for hauling freight, which should make air lines truly competitive with trucks and freight forwarders on transcontinental movements of high-grade manufactured items."

One final comment, which touches on both prospects and problems, comes from W. D. Wagstaffe, staff assistant to traffic manager, California Packing Corp., San Francisco:

"Future growth of air freight is directly tied to the degree of rate reductions. Perhaps some parallel could be drawn with the rail vs. air picture on passenger travel. Real growth and maturity arrived when the rate or charge for the air passenger approached and finally fell below rail travel. Value of step-up in service and on-time delivery for freight should be 'sold' as the value of a passenger's time was impressed on the air traveler."

Two Other Views

Air transportation—including air freight—came in for serious discussion when the National Federation of Financial Analysts Societies held its 13th annual convention in New York two weeks ago.

"In the field of freight," said Stuart G. Tipton, president, Air Transport Association of America, "tremendous strides have been made. Last year's 589 million ton-miles was about 38 times that carried in 1946, the first full year of air freight service.

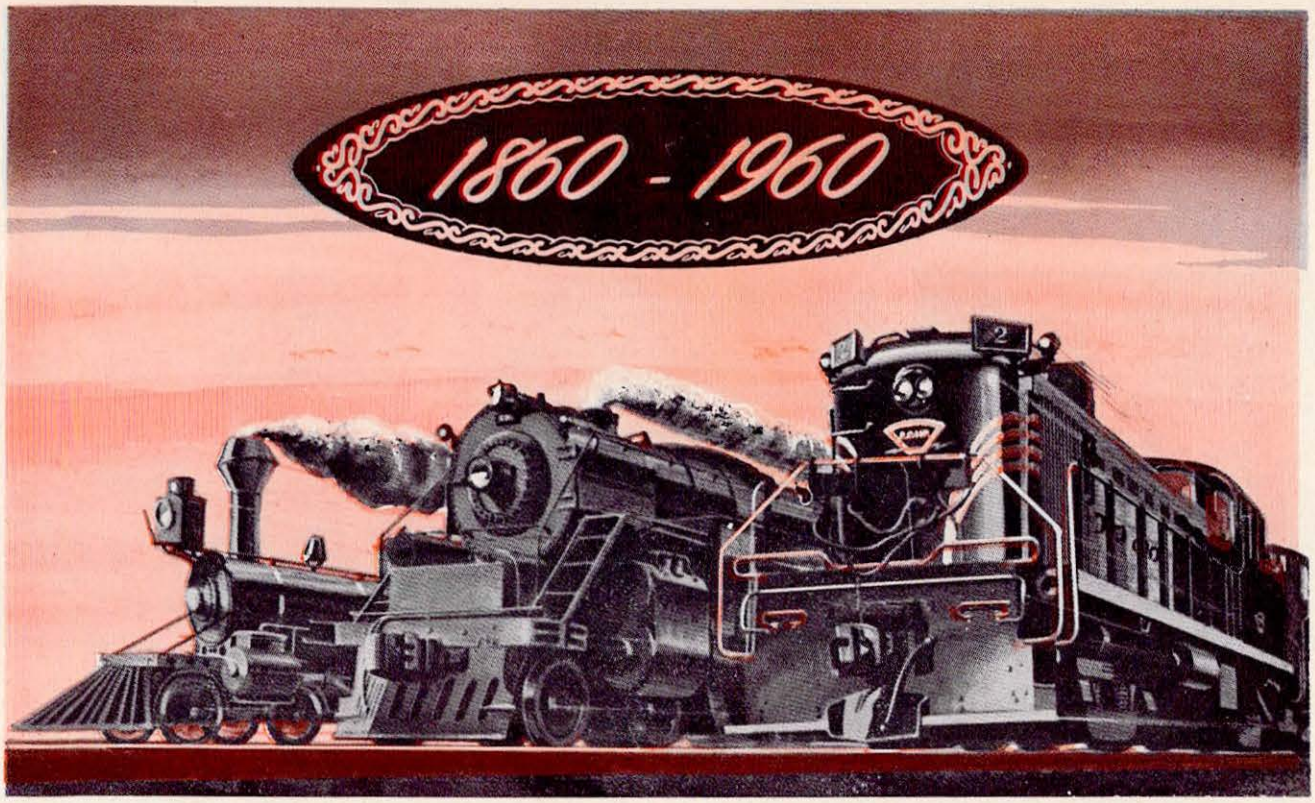
"Movement of freight by air is changing the entire distribution concepts of many businesses, concepts whose deep roots extend back to the earlier days of other forms of transportation."

A regulator's view was expressed by Alan S. Boyd, member of the Civil Aeronautics Board:

"Many people have long felt there is a tremendous potential movement of air freight. Some carriers have worked diligently to obtain this traffic. Others have treated it as a poor relation. Now with a weak market for piston-engine aircraft, a more concerted effort is being made to obtain this traffic. A number of carriers are converting last year's first-line planes to the freight service. This should prove beneficial. The full potential of the freight market will not be available, however, until a new design aircraft comes onto the market.

"In the meantime, it is my judgment that use of combined or joint rates with other type carriers can help achieve the potential in freight.

"Without vigorous action in this direction the time may well arrive when common ownership of different modes of transportation will be not only permitted, but encouraged by Congress."



...AND STILL THE BEST LINK WITH NEW ENGLAND

The year 1960 means many things to many people. To Americans, it is another "mile post" in the building of our great country. To industry, 1960 marks the beginning of a new and promising era of productivity and marketing.

1960 has a very special meaning to all of us on the L & H R . . . a fleeting backward glance on a completed century of progressive and reliable, bridge line, freight service, linking New England with the rest of the nation.

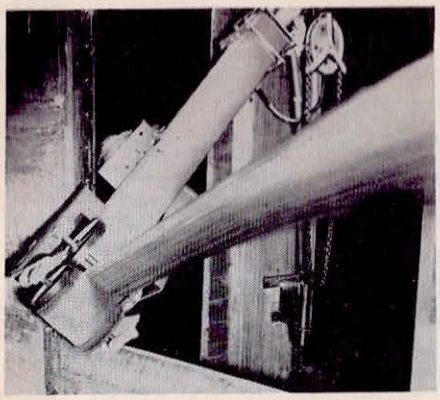
We appreciate the cooperation of our many associates and give assurance to our customers that our attention will be on the present and future, to provide better freight service for your shipping needs.

100th Anniversary

LEHIGH and HUDSON RIVER RAILWAY COMPANY

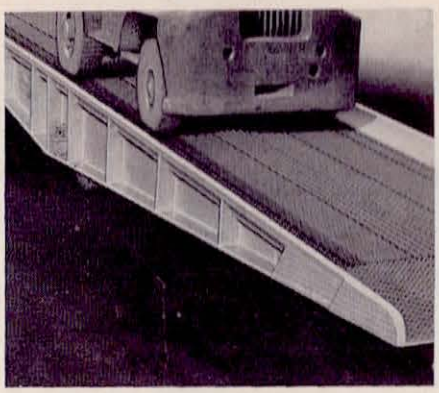
RADIO EQUIPPED

New Products Report



Grain Loaders

"Standard Duty" and "Hi-Type" Swiveloaders fill and trim box cars quickly without exposing their operators to dust hazards. The "Standard unit," wall or structurally mounted, can be controlled from outside the car. The "Hi-Type" unit, although operating on the same principle, is designed to be swung easily over three 20-in.-high grain doors. *Stephens-Adamson Mfg. Co., Dept. RA, Bulletin 854, Ridgeway Ave., Aurora, Ill.*

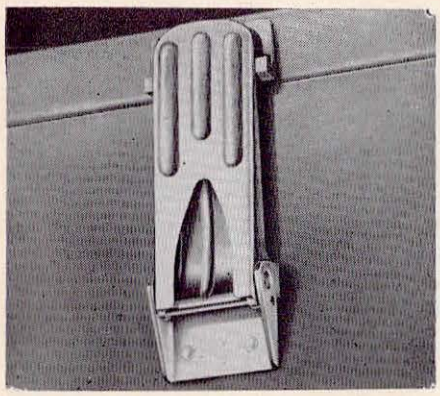


Mobile Loading Ramp

A new series of mobile loading ramps feature heavy-duty grating surfaces, self-cleaning, and designed to eliminate build-up of snow, ice, mud, oil, grease, etc. Serrated tracks set into the grating provide positive wheel traction in varying tread widths to meet power requirements. Curbs prevent run-off and hydraulic lift permits easy positioning. *Magline, Inc., Dept. RA, 1900 Mercer St., Pinconning, Mich.*

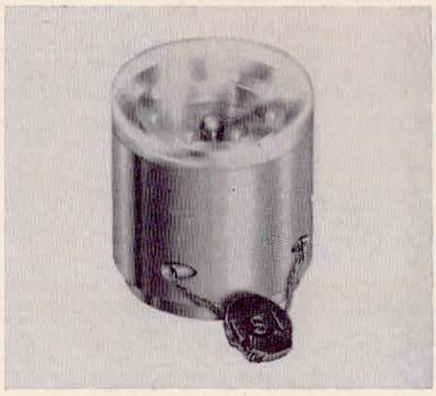
Puncture-Proof Tires

Puncture-proof tires for yard lift trucks are said to ride safely over rails, nails, or other damaging objects likely to be found in railroad or industrial freight yards. They are made of specially-developed rubber wedges laminated into one solid, resilient, non-skid tire, which the maker claims will last much longer under hazardous conditions than ordinary tires. *Notat Tire Co., Dept. RA, 1504 East 34th St., Chattanooga, Tenn.*



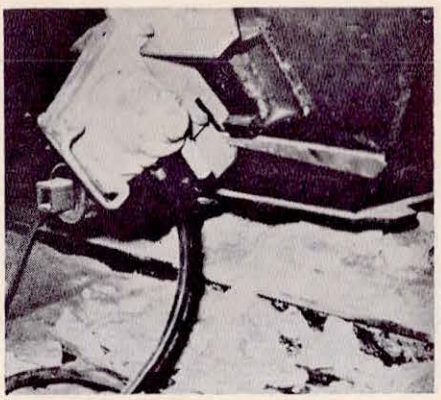
Container Latch

Container latch 46L has an ultimate tension limit of 1,000 lb. It is for use on reusable shipping cases, transit cases, large component assemblies, and in similar steel, aluminum and fibre container applications. The design eliminates the possibility of the latch springing open due to movement of the container sections caused by shock, vibration, buckling, or misalinement. *Camlock Fastener Corp., Dept. RA, 22 Spring Valley Road, Paramus, N.J.*



Magnetic Shock Detection

A simple shock detection system for delicate shipments utilizes a highly sensitive indicating ball positioned in a magnetic field. A greater-than-allowable shock dislodges the ball and traps it against the edge of its container, from which it can be moved only by breaking a seal. Two or three such indicators will give evidence of shocks from all directions. *Inertia Switch, Inc., Dept. RA, 311 West 43rd St., New York 36.*



Vibrator Mount

A locking wedge mount for rotary vibrators is designed to engage securely on hopper car chutes. The manufacturer claims that the new 25-lb mount assures better transmission of vibration, eliminates problem of "creep-out", and avoids possibility of damage to cars or vibrators resulting from use of heavy hammers to install or remove old-style vibrator mounts. *Martin Engineering Co., Dept RA, Neponset, Ill.*

similarly, appear to be related in considerable degree to lack of interest—or actual discouragement of railroad efforts—on the part of public, government, local industry and regulatory authorities.

Railroads, the CED survey says, acknowledge that they are getting valuable help in overcoming these problems and difficulties from many other development agencies—"but are considerably more emphatic about the urgent help they are not getting." They see, in particular, "need for more and better community planning and zoning, plus more and better local economic data."

With or without help, and with or without adequate funds of their own, CED concludes that "railroads are well pleased with their development activities. . . . The survey was refreshingly free of the gloom that marks so many public railroad utterances. Satisfaction with the results of past development work and a hopeful outlook on the future pervaded railroad replies. The prevailing tone of the survey indicates that railroads recognize area development activities as a versatile tool they can wield themselves to demonstrably good effect. Cooperation they need and want, to be sure. But even with imperfect cooperation from other groups, they are generally pleased with their development efforts."

Why they are pleased is indicated in the table on page 58, which summarizes results of last year's development efforts on some 31 Class I carriers, including most of the major ones. What new or expanded plants mean in terms of traffic or revenue is estimated by some of the reporting roads.

The Coast Line, for example, expects more than 60,000 annual carloads of new traffic as a result of its 1959 industrial development activity. From the same source, the L&N anticipates 43,500 new carloads; the Lackawanna, 8,000; the Boston & Maine (not listed), 15,000. On a dollar basis, the New York Central expects $28,000,000 a year in new revenue from new or expanded on-line industries. From the same source, the B&O looks for nearly $13,000,000; the Illinois Central for $5,500,000; the Erie for $3,000,000.

The 1959 reports make it clear that the CED-emphasized railroad policy of acquiring land for industrial development purposes is being continued; possibly accelerated by roads with funds available. Last year, for example, the Burlington reported acquisition of 474 acres; the Milwaukee of 168; the IC of nearly 700; the Great Northern of more than 600.

While these are only random examples, they bear out CED's conclusion that "the only way" railroads—in the absence of adequate and effective help from other sources—can assure suitable sites for industry "is to provide the sites themselves." So far as finances allow, they are doing just that, and will probably do even more of it in future.

Uniform Regulation Is Urged

The prescription for a healthy transportation system includes uniformity of state regulations and less federal intervention in state control, speakers told the National Conference of State Transportation Specialists meeting in St. Louis recently.

M. R. Renick, chairman, West Virginia PSC, said, "Unless the states can stabilize the (transportation) industry and develop better enforcement practices and procedures, there exists more than a mere possibility that the industry will be nationalized."

He added, "With the support of the industry itself, and the added voices of the various state regulatory commissions, it is likely that you will be able to force an about face in the transportation field, and guide the industry in the direction of more state, and less federal control."

Conference president, W. M. Buttram, Arkansas Commerce Commission, announced the creation of a Carrier Cooperating Committee to endorse recommendations of the NCSTS. The committee consists of representatives of the various segments of the surface transportation industry in this country.

Calling for modernization of regulatory procedures Mr. Buttram said, "Too many requirements exist which have long since ceased to serve a useful purpose, and the result is an undue burden upon the regulated carrier, which is passed on to the public in the form of increased transportation cost.

"This measure of added burden is in direct ratio to the measure of unfair advantage held by the unregulated carrier over the regulated."

NEW DAMAGE CONTROL DEVICES

FROM YOCAR

5

NEW! GONDOLA HOOD WITH SHOCK-SPRING COIL SKID
NEW! GONDOLA ROOFS
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NEW! ECONO-GUARD . . . LOW-COST ANCHOR WALL LINERS

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"Everywhere West"

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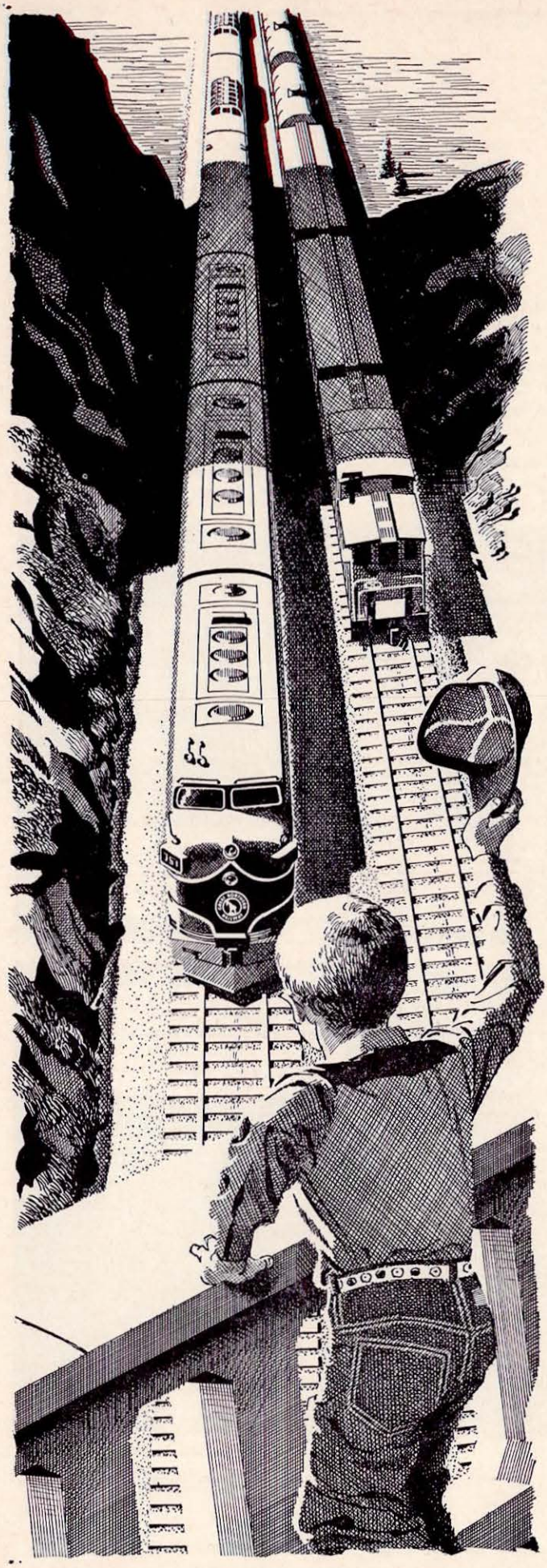


Great Northern's "best foot forward"...

the incomparable Empire Builder

Chances are your own company has as a "leader"—a single product or service that best advertises your *total* line. In our own case, as a railway carrying hundreds of thousands of passengers and millions of tons of freight, our "showcase" is an incomparable train, the Empire Builder.

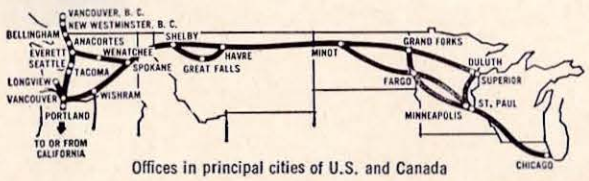
This sleek streamliner—between Chicago and Seattle, Portland—is the natural choice of business executives who are rediscovering a happy fact of travel: frequently, it pays *not* to hurry. It is the choice of pleasure travelers who would rather someone else "take the wheel" while they enjoy carefree hours of fun, rest and relaxation. It is the choice of vacationers—bound for the nation's most thrilling scenery.

But most important, Great Northern's Empire Builder is a magnificent example of how a modern, service-minded railway attends the needs of communities on its line. For the "spit and polish" needed to maintain this luxury train carries over into Great Northern freight services. Thus, with utmost efficiency and dependability, we are able to transport ores, grains and lumber from the northern tier of states—and return to this region the manufactured goods of other areas.

Whether you are traveling or shipping, learn what makes Great Northern great. Your local ticket or freight agent will be glad to help.

GREAT NORTHERN RAILWAY

Direct passenger travel inquiries to:
P. G. Holmes, Passenger Traffic Manager;
freight inquiries to G. D. Johnson,
General Freight Traffic Manager,
Great Northern Railway,
St. Paul 1, Minnesota



Offices in principal cities of U.S. and Canada

Another important announcement to railroad operating and maintenance officers . . .

Unique device gives simple, on-the-spot check of oil dirt-load . . . shows oil filter condition instantly. Mobil Fotoscope!

When should you change the oil filter in a diesel engine? This problem is important to railroad maintenance personnel because railroads rely on oil filters to keep lubricants and engines clean. And cleanliness is a prime factor in high efficiency and long engine life.

Up to now the setting of oil-filter change practices has been a bothersome, time-consuming problem. Obviously, the useful life of oil filters in general cannot be reliably predicted on either a time or mileage basis. And the fact that the mechanical condition of a diesel can greatly influence filter life serves to complicate the problem.

Laboratory analysis is often impracticable due to its complexity, costliness and delays in reporting results. Various spot tests are frequently unreliable, since their results are subject to personal interpretation.

The Mobil Fotoscope* now solves these problems.

This portable device measures the level of benzene insolubles—soot—in a used lubricating oil. Experience has shown that when these insolubles exceed predetermined values, the oil is seriously contaminated and a filter change is required to render it fit for further use. The Fotoscope does not reveal the presence of water and fuel contamination, and complete laboratory analyses are still necessary when problems of this nature are indicated or where an overall evaluation is desired for other reasons. But as a guide to filter changes, the Fotoscope is ideal. It can also be useful in the early detection of combustion difficulties.

How the Fotoscope works:

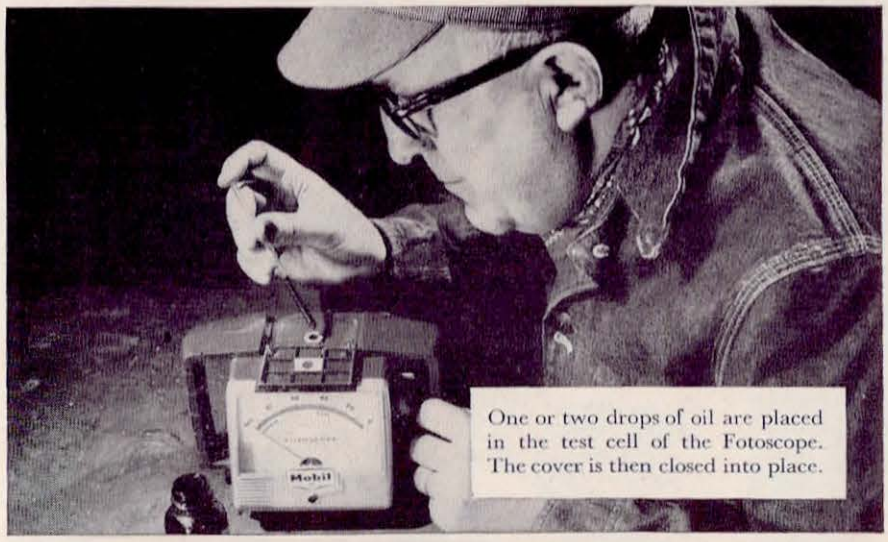
Oil testing by the Fotoscope is based on a reliable, well-validated scientific principle. The Fotoscope simply measures the amount of light which passes through a thin film of used oil. Because the contaminating insolubles (if any are present in the oil sample under test) obstruct light, less light will pass through a highly contaminated oil than through a clean oil.

Whatever light is transmitted strikes a photo-electric cell positioned above the oil sample. This light activates the photo-electric cell which permits a current to flow and register on a meter. As the soot load in an oil increases, less and less light filters through to the photo-electric cell and less current registers on the meter. In this way accurate readings are obtained on any given oil sample.

The Mobil Fotoscope is simple and easy to use, and has the added advantage of being inexpensive and sturdy enough to withstand normal abuses in handling. It is currently available to facilitate the work of railroad maintenance personnel, to help today's railroads solve maintenance problems. Another example of Mobil Service which goes beyond fuels and lubricants for the benefit of the railroad industry.

Parker B Smith

RAILROAD DEPARTMENT MANAGER



One or two drops of oil are placed in the test cell of the Fotoscope. The cover is then closed into place.

Operator snaps a switch to activate light source and observes the reading. Results are fast, reliable, even with non-technical operators.

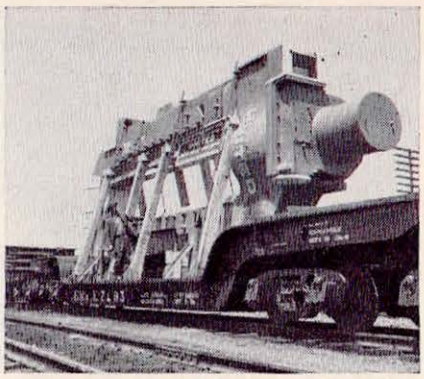
*PATENTED

94 years of helpful association with America's Railroad Industry

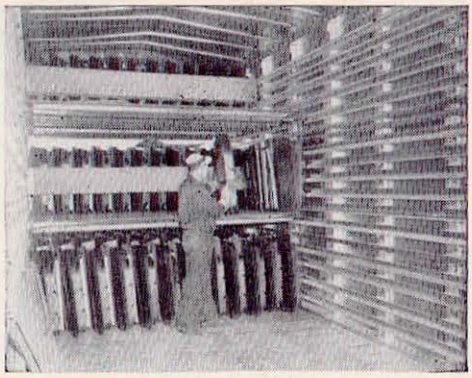
Mobil

MOBIL OIL COMPANY, 59 East Van Buren Street, Chicago 5, Ill. • 150 East 42nd Street, New York 17, N.Y. **RAILROAD PRODUCTS**

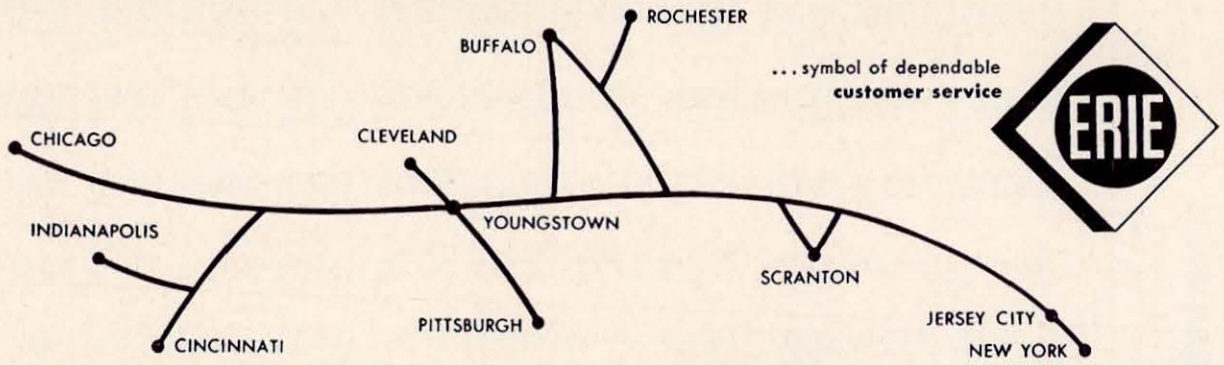
PIGGY-BACK trailers ride special king-sized Erie flats for faster, safer door-to-door service.



DEPRESSED CENTER FLAT CARS take the big loads, add more clearance inches to Erie's famous high and wide route.

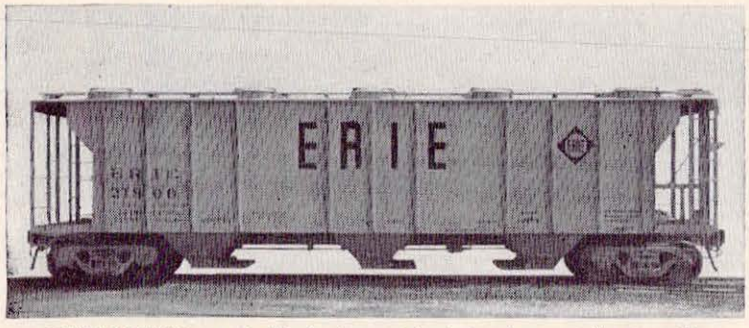


DF CARS like this one equipped for automobile parts are available for many purposes.

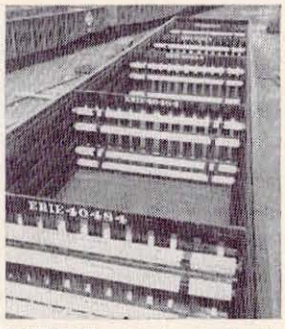


...symbol of dependable **customer service**

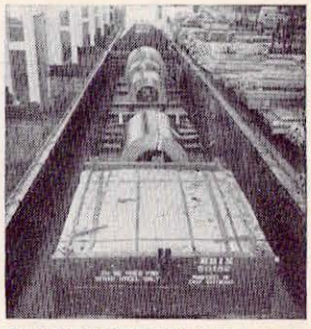
ERIE



COVERED HOPPERS carry animal feed, salt, cement, chemicals and numerous other commodities.



ELECTRODES move damage-free in this special car.



FLAT ROOF GONDOLA CAR protects coiled strip, flat sheet and other commodities requiring weather protection.

Fitted to your needs for safer, more efficient transportation

ERIE PRODUCT-DESIGNED EQUIPMENT

An important **customer service** of your local Erie representative is working with you to analyze your transportation requirements. And if your products can be handled more economically, or shipped more safely, using special equipment such as that shown here, he'll be the first to recommend it.

In fact, the wide variety of special Erie cars includes a number that were designed and developed through the teamwork of Erie men and their customers.

Fitting your shipping needs with more efficient, specially-designed equipment is another example of the kind of complete **customer service** you can count on when you "Route it Erie". To see **customer service** in action, call your Erie representative the next time you ship to or from the important industrial area served by the Erie.

Erie Railroad

Dependable Service For The Heart Of Industrial America

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

MONTH OF MARCH AND THREE MONTHS OF CALENDAR YEAR 1960

Name of Road		Average mileage operated during period	Operating Revenues				Operating Expenses										Operating ratio		Net from railway operation	Railway tax accruals	Net Railway operating income	
					Total (inc. misc.)		Maint. Way and Structures			Maint. Equipment												
			Freight	Pass.	1960	1959	Total 1960	Total 1959	Deprec and Retire-ments	Total 1960	Total 1959	Deprec and Retire-ments	Traffic	Trans-portation	Total 1960	Total 1959	1960	1959			1960	1959
Akron, Canton & Youngstown	March	171	516	....	528	542	61	59	6	89	75	15	46	159	409	372	77.3	68.7	120	74	41	59
	3 mos.	171	1,481	....	1,514	1,464	177	181	17	245	203	46	134	464	1,166	1,096	77.0	74.9	348	212	113	117
Alabama, Tenn. & Northern	March	214	251	....	257	360	55	50	9	13	15	6	4	101	177	151	69.1	42.0	79	13	3	59
	3 mos.	214	797	....	808	925	160	150	20	35	31	17	13	261	481	445	59.5	48.1	327	84	56	115
Atchison, Topeka & Santa Fe	March	12,970	47,728	2,617	55,209	55,595	6,079	6,558	720	11,406	10,357	2,458	1,351	20,173	41,247	39,210	74.7	70.5	13,692	8,516	5,149	6,639
	3 mos.	12,970	127,967	8,225	149,953	148,894	17,440	18,329	2,173	32,108	30,945	7,347	4,023	56,020	116,383	113,264	77.6	76.1	33,570	21,375	11,059	13,235
Atlanta & St. Andrews Bay	March	81	298	....	302	312	41	46	3	28	33	8	8	72	174	181	57.5	58.1	128	59	36	38
	3 mos.	81	930	....	945	933	109	124	11	82	96	24	22	221	506	528	53.6	56.6	439	201	131	129
Atlanta & West Point	March	93	246	23	328	343	51	46	10	51	51	14	18	132	275	273	84.0	79.5	52	19	4	34
	3 mos.	93	713	69	935	922	128	123	24	154	150	43	54	393	795	789	85.0	85.6	141	55	14	3
Western of Alabama	March	133	300	22	367	379	53	45	9	65	59	19	22	141	303	286	82.5	75.3	64	43	13	38
	3 mos.	133	858	64	1,036	1,040	152	134	28	189	175	57	63	423	895	849	86.4	81.6	141	112	26	59
Atlantic Coast Line	March	5,573	12,437	1,739	15,452	15,119	2,211	1,957	212	2,654	2,547	676	520	5,725	12,014	11,454	77.8	75.8	3,438	1,350	1,464	1,352
	3 mos.	5,573	35,801	5,052	44,244	42,550	6,202	5,591	564	7,508	7,557	1,983	1,517	16,893	34,684	33,529	78.4	78.8	9,560	4,325	3,143	2,676
Baltimore & Ohio	March	5,910	29,803	1,275	33,896	33,783	3,962	3,518	488	7,154	5,770	1,093	1,038	15,148	29,307	26,697	86.5	79.0	4,589	2,526	98	3,289
	3 mos.	5,910	87,918	3,701	99,533	93,227	10,707	10,177	1,510	20,944	17,127	3,263	2,907	44,072	84,434	77,214	84.8	82.8	15,098	7,555	1,792	4,880
Staten Island Rap. Trans.	March	29	155	95	255	285	65	60	12	51	41	2	2	157	308	300	121.1	105.1	—54	51	—123	—88
	3 mos.	29	479	271	770	837	180	170	33	146	119	5	6	457	888	875	115.2	104.5	—117	149	—322	—252
Bangor & Aroostook	March	602	1,812	17	1,874	1,628	489	428	20	318	301	110	38	463	1,404	1,288	75.0	79.2	469	111	387	242
	3 mos.	602	4,703	59	4,888	4,530	1,255	1,163	60	857	868	330	105	1,334	3,802	3,664	77.8	80.9	1,085	302	802	638
Bessemer & Lake Erie	March	203	1,629	....	1,820	1,579	228	208	27	679	737	73	28	469	1,569	1,565	86.2	99.1	250	365	243	152
	3 mos.	203	4,616	....	4,948	3,483	657	656	76	1,781	1,821	356	112	1,345	4,378	4,259	88.5	122.3	570	1,090	613	201
Boston & Maine	March	1,557	5,526	506	6,572	6,872	742	830	145	904	779	246	178	2,628	4,840	5,234	73.6	76.2	1,732	495	624	579
	3 mos.	1,557	15,207	1,504	18,098	18,885	2,073	2,455	430	2,601	2,590	748	493	7,698	13,973	15,523	77.2	82.2	4,125	1,399	1,039	227
C. P. R. in Maine	March	234	1,169	30	1,228	1,106	96	120	20	133	149	18	19	255	529	547	43.1	49.5	698	36	560	426
	3 mos.	234	3,215	129	3,431	3,035	279	368	61	398	433	53	63	752	1,580	1,635	46.1	53.9	1,851	107	1,416	976
Carolina & Northwestern	March	284	274	....	281	294	32	66	7	28	32	21	5	87	168	202	59.7	68.8	113	25	41	26
	3 mos.	284	827	....	842	854	90	142	20	82	95	63	16	250	480	533	57.1	62.3	361	69	136	98
Central of Georgia	March	1,745	3,383	126	3,746	3,897	616	585	46	780	690	189	175	1,504	3,280	3,111	87.6	79.8	466	283	175	495
	3 mos.	1,745	9,789	392	10,784	10,894	1,726	1,705	128	2,219	2,073	567	524	4,376	9,442	9,256	87.6	85.0	1,343	843	498	842
Central of New Jersey	March	594	3,719	483	4,572	4,622	527	490	96	764	804	136	76	2,282	3,908	3,813	85.5	82.5	664	500	—211	123
	3 mos.	595	10,583	1,408	12,987	12,675	1,501	1,467	291	2,218	2,497	402	238	6,580	11,303	11,402	87.0	90.0	1,685	1,482	—865	—636
Central Vermont	March	375	668	37	771	930	131	151	17	129	117	9	19	329	648	689	84.0	74.1	123	55	—31	80
	3 mos.	375	2,018	156	2,378	2,526	383	427	52	356	342	28	56	988	1,904	2,027	80.1	80.2	474	166	7	—18
Chesapeake & Ohio	March	5,122	28,154	497	29,922	29,508	3,300	3,290	484	5,439	5,273	1,902	893	10,990	22,257	21,968	74.4	74.4	7,665	3,787	4,190	4,799
	3 mos.	5,122	80,315	1,357	85,135	84,996	9,800	9,100	1,397	15,981	15,142	5,696	2,612	31,636	64,724	63,801	76.0	75.1	20,410	9,730	11,554	13,440
Chicago & Eastern Illinois	March	862	2,608	142	3,052	3,227	369	342	31	529	462	183	134	1,215	2,425	2,296	79.5	71.1	627	224	264	547
	3 mos.	862	7,232	468	8,506	8,999	1,065	1,049	93	1,575	1,431	549	417	3,577	7,168	7,023	84.3	78.0	1,338	677	328	714
Chicago & Illinois Midland	March	121	704	....	717	722	39	38	7	98	104	23	31	157	376	355	52.5	49.2	341	190	141	162
	3 mos.	121	1,940	....	1,980	1,533	102	107	21	312	296	69	91	448	1,104	1,023	55.8	66.8	876	497	367	213
Chicago & North Western	March	9,280	13,913	1,347	16,414	18,184	2,932	2,655	373	2,786	3,247	1,012	593	7,510	14,879	15,733	90.6	86.5	1,535	1,338	—920	262
	3 mos.	9,280	40,532	4,219	48,224	51,269	7,630	7,688	1,138	8,456	9,267	3,048	1,693	21,975	42,845	45,427	88.8	88.6	5,379	4,048	—1,687	—726
Chicago, Burl. & Quincy	March	8,659	17,759	1,502	21,456	22,742	2,562	2,500	363	4,056	4,678	1,091	615	8,536	16,783	17,527	78.2	77.1	4,673	2,614	1,842	2,006
	3 mos.	8,663	48,506	4,531	59,175	65,166	7,337	7,384	1,163	11,747	13,207	3,259	1,909	25,298	49,281	51,363	83.3	78.8	9,894	5,753	3,556	5,083
Chicago Great Western	March	1,469	2,600	6	2,800	2,864	326	397	42	443	416	128	129	985	1,948	1,947	69.6	68.0	852	327	245	336
	3 mos.	1,469	7,470	21	8,039	8,337	922	1,144	133	1,213	1,251	382	381	2,879	5,624	5,805	70.0	69.6	2,414	922	716	926
Chic., Milw., St. P. & Pac	March	10,599	16,028	1,002	19,026	20,664	2,689	2,853	427	3,448	3,677	865	579	7,969	15,903	16,479	83.6	79.7	3,123	1,695	522	1,705
	3 mos.	10,599	46,032	3,153	54,855	57,510	7,848	8,149	1,295	10,205	10,673	2,634	1,687	23,509	46,858	48,506	85.4	84.3	7,997	5,038	675	1,755
Chicago, R. Is. & Pacific	March	7,527	15,340	1,333	18,439	19,642	2,411	2,403	281	2,950	3,440	658	544	7,449	14,316	14,969	77.6	76.2	4,123	1,782	898	1,200
	3 mos.	7,525	42,733	4,110	51,870	54,833	6,179	6,455	724	8,794	9,783	1,953	1,664	21,507	41,008	43,069	79.1	78.5	10,862	4,833	2,102	2,674
Clinchfield	March	293	1,743	....	1,754	1,964	196	239	22	348	338	106	67	435	1,119	1,186	63.8	60.4	634	208	553	707
	3 mos.	293	5,110	....	5,139	5,521	585	685	67	1,052	948	320	197	1,351	3,400	3,411	66.2	61.8	1,738	623	1,515	1,900
Colorado & Southern	March	712	1,114	64	1,339	1,446	165	182	17	204	255	79	34	541	1,018	1,079	76.0	74.6	321	168	128	155
	3 mos.	712	3,189	179	3,818	3,980	501	450	95	635	674	236	105	1,594	3,049	3,083	79.9	77.5	769	415	286	310
Ft. Worth & Denver	March	1,362	1,624	125	1,995	2,182	223	366	32	221	274	46	75	800	1,441	1,636	72.3	75.0	554	190	141	139
	3 mos.	1,362	5,087	359	6,092	6,152	640	1,021	95	679	838	139	222	2,475	4,386	5,049	72.0	82.1	1,707	627	386	80
Colorado & Wyoming	March	39	236	....	425	418	19	20	2	11	44	12	3	155	211	230	49.7	55.0	214	122	78	76
	3 mos.	39	753	....	1,311	1,098	59	61	7	92	131	37	7	467	686	633	52.3	57.7	626	367	234	180
Delaware & Hudson	March	763	3,936	131	4,215	4,066	373	399	61	933	710	201	106	1,459	3,158	3,036	74.9	74.7	1,057	374	692	555
	3 mos.	763	11,142	418	11,976	11,787	1,144	1,193	175	2,575	2,088	593	317	4,374	9,258	8,982	77.3	76.2	2,718	1,162	1,701	1,562
Delaware, Lack. & Western	March	941	4,772	779	6,364	6,130	663	494	151	1,170	1,148	342	204	3,384	5,825	5,498	91.5	89.7	539	703	—476	—150
	3 mos.	941	13,588	2,308	18,174	17,765	1,824	1,772	436	3,369	3,262	1,027	610	9,529	16,477	16,407	90.7	92.4	1,696	2,092	—1,101	—1,054
Denver & Rio Grande Western	March	2,128	6,504	202	6,919	6,638	725	733	95	1,019	997	331	237	2,089	4,378	4,343	63.3	65.4	2,542	1,455	1,078	1,044
	3 mos.	2,128	18,127	609	19,327	18,222	1,872	1,805	277	2,939	2,860	977	715	6,123	12,546	12,296	64.9	67.5	6,781	3,933	2,882	2,872
Detroit & Toledo Shore Line	March	50	680	....	705	809	64	61	4	85	98	24	22	250	440	448	62.4	55.4	266	95	47	89
	3 mos.	50	1,912	....	2,046	2,290	171	204	12	244	280	72	61	741	1,268	1,348	62.0	58.9	778	264	130	206
Detroit Toledo & Ironton	March	465	1,894	....	1,992	2,131	277	212	30	482	405	150	56	525	1,448	1,313	72.7	61.6	544	128	361	636
	3 mos.	465	5,775	....	6,081	6,236	780	869	87	1,326	1,159	453	180	1,583	4,183	4,095	68.8	65.7	1,898	382	1,428	1,605
Duluth, Miss. & Iron Range	March	575	612	....	694	467	496	499	67	718	631	199	14	714	2,207	2,016	317.9	431.4	—1,513	162	—1,699	—1,680
	3 mos.	575	1,528	2	1,762	1,090	1,329	1,413	252	2,179	1,833	600	42	2,106	6,435	5,909	365.3	542.2	—4,673	460	—5,015	—5,201
Duluth, So. Shore & Atlantic	March	544	595	3	620	583	106	103	10	114	139	26	34	205	483	1501	78.0	86.0	136	40	74	33
	3 mos.	544	1,541	9	1,614	1,465	302	299	31	308	356	78	100	581	1,369	1,389	84.8	94.8	245	123	72	—45

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

MONTH OF MARCH AND THREE MONTHS OF CALENDAR YEAR 1960

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1960	1959	Operating Expenses: Maint. Way and Structures: Total 1960	Total 1959	Deprec and Retirements	Maint. Equipment: Total 1960	Total 1959	Deprec and Retirements	Traffic	Transportation	Total 1960	Total 1959	Operating ratio 1960	1959	Net from railway operation	Railway tax accruals	Net Railway operating income 1960	1959
Duluth, Winnipeg & Pacific	March	175	584	....	588	510	75	79	5	49	65	1	7	189	330	347	56.1	68.0	258	50	124	49
	3 mos.	175	1,564	3	1,581	1,427	225	213	16	175	193	13	22	554	1,007	998	63.7	70.0	574	133	189	58
Elgin, Joliet & Eastern	March	205	4,048	....	5,322	5,277	335	185	29	935	849	126	41	2,054	3,800	3,393	71.4	64.3	1,522	811	256	557
	3 mos.	205	11,729	....	15,427	14,199	1,049	739	87	2,599	2,288	377	125	5,950	10,860	9,731	70.4	68.5	4,568	2,278	1,006	1,180
Erie	March	2,239	12,392	564	14,117	14,131	1,412	1,285	228	2,473	2,163	551	320	6,538	11,440	11,088	81.0	78.5	2,676	1,280	568	1,122
	3 mos.	2,239	35,923	1,674	40,852	38,280	3,959	3,808	685	6,839	6,227	1,675	1,104	18,906	32,992	32,211	80.8	84.1	7,860	3,664	1,844	494
Florida East Coast	March	572	2,349	604	3,305	3,467	430	488	25	624	663	117	95	1,194	2,554	2,737	77.3	78.9	751	258	187	266
	3 mos.	572	6,877	1,746	9,547	10,104	1,309	1,425	120	1,803	1,937	352	270	3,456	7,464	8,005	78.2	79.2	2,084	702	599	646
Georgia Railroad	March	321	541	16	648	684	86	114	9	117	124	31	40	298	580	631	89.5	92.3	68	43	46	26
	3 mos.	321	1,529	45	1,837	1,981	258	297	24	347	372	101	119	880	1,718	1,830	93.5	92.3	119	127	54	74
Georgia & Florida	March	321	285	....	293	329	125	83	3	40	36	10	23	95	303	247	103.5	75.2	—10	22	—58	33
	3 mos.	321	819	....	838	938	290	220	11	126	128	30	70	287	832	756	99.4	80.6	5	61	—120	45
Grand Trunk Western	March	951	4,465	200	5,100	5,437	682	653	59	926	882	114	93	2,414	4,376	4,461	85.8	82.0	724	402	—70	10
	3 mos.	951	13,234	645	15,234	15,568	1,963	2,015	164	2,589	2,593	338	274	6,905	12,469	13,154	81.9	84.5	2,765	1,212	272	—421
Great Northern	March	8,287	16,740	566	18,547	19,428	2,482	2,532	290	3,746	4,017	843	578	7,381	15,079	15,338	81.3	78.9	3,469	1,837	2,171	1,564
	3 mos.	8,288	47,708	1,759	52,991	54,326	7,250	7,382	908	11,258	11,044	2,600	1,693	21,766	44,861	44,673	84.7	82.2	8,130	5,488	1,964	3,271
Green Bay & Western	March	219	390	....	406	395	57	54	5	53	35	9	28	119	284	268	70.1	67.8	121	58	28	40
	3 mos.	219	1,109	....	1,149	1,139	148	142	14	135	138	26	84	358	802	814	69.7	71.5	348	180	68	79
Gulf, Mobile & Ohio	March	2,752	6,194	226	6,854	7,251	958	926	76	1,452	1,372	303	296	2,377	5,455	5,349	79.6	73.8	1,399	504	527	588
	3 mos.	2,752	17,266	699	19,296	20,108	2,614	2,686	223	4,105	4,035	908	885	6,944	15,647	15,657	81.1	77.9	3,649	1,593	893	1,210
Illinois Central	March	6,500	18,842	1,760	22,971	23,100	3,270	3,328	349	4,258	4,380	855	643	9,021	18,323	18,452	79.8	79.9	4,648	2,829	1,356	1,602
	3 mos.	6,500	53,194	5,565	65,609	65,685	9,553	9,739	1,092	12,850	12,865	2,549	1,956	26,105	53,783	54,436	82.0	82.9	11,826	6,912	2,808	3,479
Illinois Terminal	March	335	718	....	802	902	85	90	4	158	199	31	49	321	671	758	83.6	84.1	131	39	8	—39
	3 mos.	335	2,054	....	2,269	2,471	256	273	9	448	552	92	142	943	1,957	2,201	86.3	89.1	312	68	—3	—70
Kansas City Southern	March	891	3,413	57	3,831	3,940	262	284	45	512	530	113	97	1,185	2,189	2,190	57.1	55.6	1,642	702	652	712
	3 mos.	891	9,833	175	11,072	11,409	728	824	151	1,524	1,442	339	292	3,548	6,479	6,378	58.5	55.9	4,593	1,956	1,852	2,125
Kansas, Oklahoma & Gulf	March	327	464	....	465	495	41	64	8	42	30	12	36	110	259	253	55.8	51.2	205	92	72	88
	3 mos.	327	1,257	....	1,260	1,619	120	159	23	125	112	36	105	314	752	757	59.7	46.8	508	223	146	333
Lake Superior & Ishpeming	March	160	68	....	89	100	52	50	12	77	60	36	2	63	212	194	239.1	194.6	—124	43	—157	—128
	3 mos.	160	212	....	282	270	140	139	36	227	180	107	6	194	621	547	220.0	202.1	—339	130	—435	—359
Lehigh & Hudson River	March	96	254	....	255	283	26	30	2	31	30	8	16	106	197	211	77.4	74.6	58	24	....	8
	3 mos.	96	754	....	756	802	75	91	7	94	92	25	46	323	593	605	78.5	75.5	162	60	—2	21
Lehigh & New England	March	177	290	....	292	445	49	60	7	168	135	38	18	158	441	465	150.9	104.5	—149	28	—107	81
	3 mos.	177	936	....	946	1,226	141	161	23	509	416	116	54	506	1,358	1,464	143.5	111.2	—412	87	—281	90
Lehigh Valley	March	1,127	4,537	118	4,856	4,994	656	616	99	820	885	161	137	2,453	4,298	4,514	88.5	90.4	558	477	—110	—155
	3 mos.	1,127	13,368	370	14,328	13,780	1,856	1,771	293	2,474	2,729	529	413	7,188	12,631	13,168	88.2	95.6	1,698	1,413	—338	—1,278
Long Island	March	344	1,172	4,688	6,078	5,794	1,041	796	103	1,354	1,113	169	36	3,128	5,785	5,111	95.2	88.2	293	425	—348	95
	3 mos.	344	2,997	13,759	17,365	16,187	2,616	2,291	324	3,418	3,183	508	123	9,031	15,852	14,933	91.3	92.3	1,514	1,255	—346	—394
Louisiana & Arkansas	March	746	2,021	40	2,164	2,195	229	180	20	373	286	98	79	696	1,457	1,296	67.3	59.0	707	290	305	336
	3 mos.	746	6,066	113	6,552	6,185	534	510	63	991	824	294	239	2,056	4,055	3,754	61.9	60.7	2,497	1,193	929	888
Louisville & Nashville	March	5,684	18,233	675	20,472	20,204	2,500	2,665	307	4,133	4,227	1,142	510	7,736	15,903	15,829	77.7	78.3	4,570	3,066	1,660	1,896
	3 mos.	5,684	51,425	1,965	57,852	57,218	7,500	7,787	965	11,667	12,349	3,427	1,476	22,593	46,104	46,981	79.7	82.1	11,748	7,958	4,355	4,055
Maine Central	March	936	2,258	20	2,412	2,255	365	388	28	392	404	82	30	823	1,726	1,811	71.5	80.3	687	332	235	137
	3 mos.	936	6,294	72	6,769	6,480	1,061	1,105	85	1,167	1,138	250	92	2,396	5,058	5,294	74.7	81.7	1,711	799	588	396
Minneapolis & St. Louis	March	1,391	1,700	....	1,756	1,778	270	238	29	311	318	101	118	660	1,506	1,491	85.8	83.9	250	148	60	112
	3 mos.	1,391	4,929	1	5,077	5,205	769	741	89	902	894	304	370	1,868	4,329	4,436	85.3	85.2	748	520	160	273
Minn., Northfield & Southern	March	77	315	....	325	411	17	20	3	46	46	13	36	91	229	246	70.4	59.8	96	63	33	62
	3 mos.	77	899	....	940	1,149	52	54	8	134	122	39	102	269	669	660	71.2	57.4	271	173	88	190
Minn., St. P. & S. Ste. Marie	March	3,222	2,961	21	3,128	3,391	547	556	49	631	700	143	111	1,375	2,863	2,960	91.5	87.3	265	265	45	130
	3 mos.	3,222	7,986	99	8,518	9,502	1,527	1,606	143	1,846	2,064	432	330	4,147	8,431	8,849	99.0	93.1	87	378	—360	—308
Missouri-Illinois	March	172	511	....	513	530	44	43	4	95	100	40	15	141	300	303	58.5	57.2	213	173	100	112
	3 mos.	172	1,350	....	1,357	1,196	118	134	9	258	270	120	41	380	829	828	61.0	69.2	529	438	254	211
M-K-T Lines	March	2,917	4,276	64	4,738	5,195	494	631	87	1,061	1,086	262	174	1,738	3,563	3,891	75.2	74.9	1,175	355	353	404
	3 mos.	2,918	12,488	209	13,785	14,555	1,345	1,586	231	2,881	2,841	786	533	5,100	10,370	10,724	75.2	73.7	3,415	1,056	956	1,088
Missouri Pacific	March	9,413	22,524	804	25,852	26,403	3,801	3,785	321	4,362	4,509	674	703	9,750	19,624	19,773	75.9	74.9	6,228	1,923	3,001	2,995
	3 mos.	9,413	63,344	2,497	72,822	72,791	9,020	9,118	952	12,875	12,890	2,945	2,109	28,355	55,361	55,557	76.0	76.3	17,461	5,651	8,150	8,021
Monon	March	541	1,541	22	1,665	1,760	254	199	21	266	311	77	117	685	1,430	1,466	85.9	83.3	235	120	32	111
	3 mos.	541	4,439	74	4,809	4,931	671	611	62	836	903	229	322	1,991	4,138	4,280	86.0	86.8	671	362	45	215
Monongahela	March	177	656	....	658	356	72	61	13	60	53	11	1	158	315	282	47.9	79.3	343	62	206	—1
	3 mos.	177	1,778	....	1,786	1,089	219	184	38	171	173	33	3	454	892	1,074	50.0	98.7	895	222	499	—201
New York Central	March	10,368	47,938	5,711	62,058	62,074	6,757	6,295	1,091	11,250	10,700	2,453	983	28,511	50,567	49,658	81.5	80.0	11,491	5,938	3,239	4,537
	3 mos.	10,368	135,208	17,520	176,931	172,642	18,330	18,577	3,228	33,750	32,100	7,353	3,135	82,408	146,747	147,452	82.9	85.4	30,184	17,587	6,500	3,705
Pitts. & Lake Erie	March	220	3,333	38	3,540	3,445	457	340	57	930	1,010	335	52	1,195	2,849	2,846	80.5	82.6	691	773	1,109	982
	3 mos.	220	9,716	111	10,326	8,821	1,255	1,027	170	2,584	2,813	998	186	3,584	8,249	8,105	79.9	91.9	2,076	2,404	3,314	2,482
New York, Chicago & St. Louis	March	2,170	12,930	116	13,521	13,613	1,250	1,353	162	2,055	2,015	478	391	5,123	9,339	9,138	69.1	67.1	4,181	2,009	1,508	1,826
	3 mos.	2,170	37,551	382	39,245	37,252	3,722	3,893	481	6,242	5,937	1,425	1,082	14,714	27,238	26,666	69.4	71.6	12,006	5,796	4,273	4,323
New York, N. H. & Hartford	March	1,762	6,746	3,681	12,160	12,739	1,476	1,313	234	2,029	1,789	387	293	5,981	10,747	10,510	88.4	82.5	1,413	1,077	—1,291	—93
	3 mos.	1,762	18,961	11,094	34,854	35,939	4,091	3,810	776	5,567	5,487	1,402	840	17,488	30,864	30,856	88.6	85.9	3,990	3,179	—3,688	—1,926
New York Connecting	March	21	341	....	379	389	75	42	25	16	13	....	....	117	212	143	55.9	36.9	167	89	42	133
	3 mos.	21	941	....	1,022	1,036	204	175	76	44	42	....	....	310	569	486	55.7	46.9	453	267	103	255
New York, Sus. & Western	March	100	325	16	359	376	48	44	9	53	52	10	9	164	309	306	86.1	81.5	50	34	—24	3
	3 mos.	100	937	46	1,034	1,026	137	118	22	156	167	31	26	477	892	917	86.3	89.4	142	102	—87	—86

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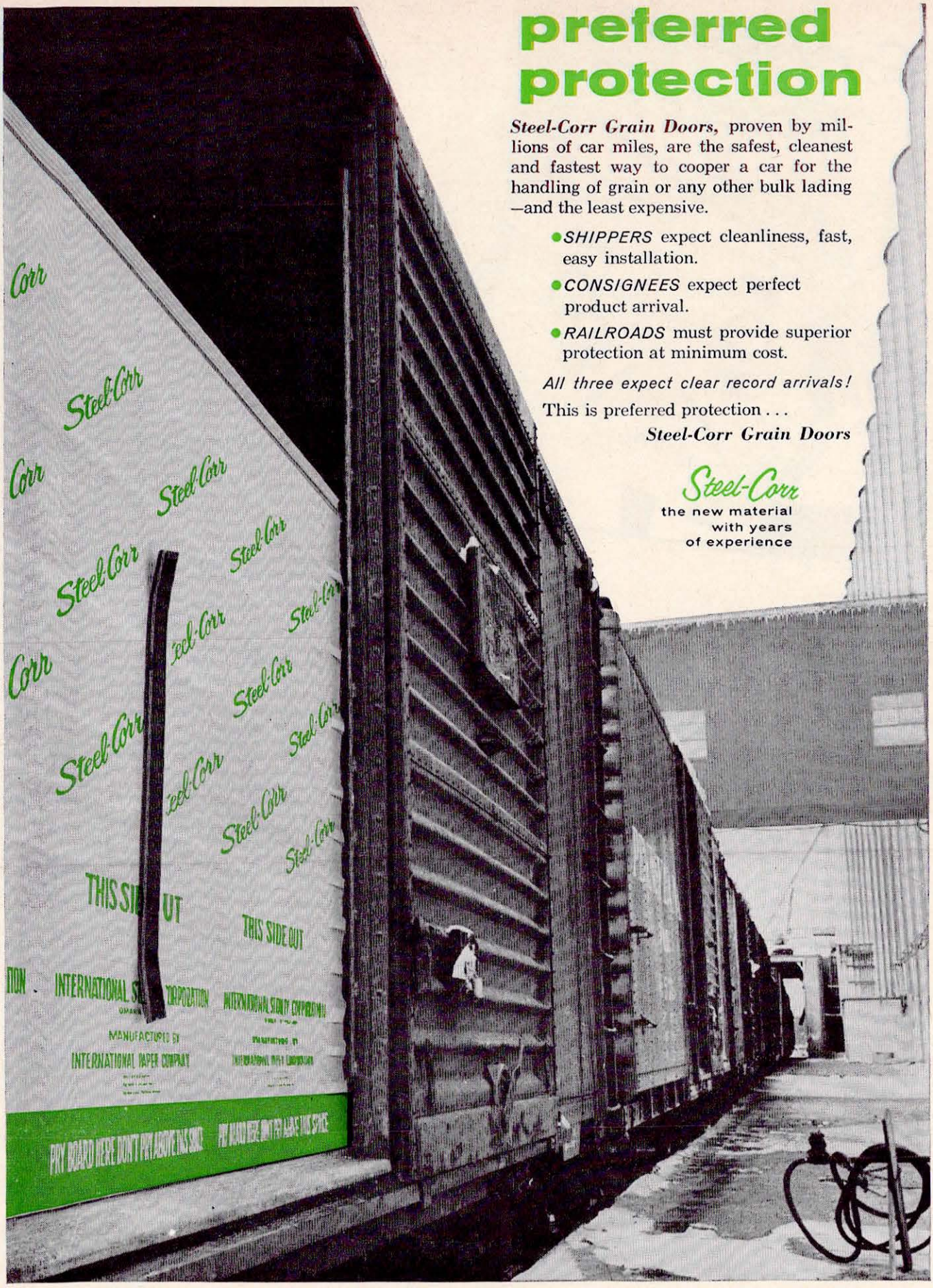
a RAILWAY AGE Service Page

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF MARCH AND THREE MONTHS OF CALENDAR YEAR 1960

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1960	Total (inc. misc.) 1959	Operating Expenses: Maint. Way and Structures: Total 1960	Total 1959	Deprec and Retirements	Maint. Equipment: Total 1960	Total 1959	Deprec. and Retirements	Traffic	Transportation	Total 1960	Total 1959	Operating ratio 1960	Operating ratio 1959	Net from railway operation	Railway tax accruals	Net Railway operating income 1960	Net Railway operating income 1959
Norfolk & Western	March	2,743	20,446	219	21,675	21,583	2,309	2,475	380	3,522	3,820	1,469	364	5,884	12,848	13,361	59.3	61.9	8,827	4,727	5,582	5,145
	3 mos.	2,743	59,325	602	62,644	62,556	6,901	6,937	1,204	10,487	11,004	4,413	1,103	17,105	37,808	39,061	60.4	62.4	24,836	13,181	15,747	14,627
Norfolk Southern	March	592	684	....	699	852	157	196	14	121	127	40	45	244	622	708	89.0	83.1	77	51	23	59
	3 mos.	592	2,071	....	2,109	2,289	471	543	42	387	367	120	147	726	1,911	2,033	91.0	88.8	198	160	35	21
Northern Pacific	March	6,828	13,421	365	14,901	14,589	2,088	2,043	375	2,983	2,728	811	427	6,188	12,597	12,191	84.5	83.6	2,304	1,563	927	1,157
	3 mos.	6,828	36,550	1,163	40,848	40,979	5,558	5,369	941	8,750	8,409	2,401	1,262	17,944	36,234	35,360	88.7	86.3	4,614	4,453	840	2,082
Northwestern Pacific	March	328	1,085	....	1,090	1,329	179	214	15	72	84	3	8	313	600	670	55.1	50.4	490	113	23	182
	3 mos.	328	2,880	....	2,900	3,282	635	668	53	216	247	8	22	907	1,863	1,983	64.3	60.4	1,037	295	32	281
Pacific Electric	March	353	1,117	....	1,239	1,289	183	181	24	32	49	4	20	479	819	896	66.1	69.5	420	139	31	108
	3 mos.	354	2,876	....	3,232	3,455	528	575	71	93	156	11	64	1,470	2,462	2,625	76.2	76.0	770	445	—169	55
Pennsylvania	March	9,895	59,386	8,980	77,926	77,575	7,910	7,592	1,450	15,845	15,102	2,995	1,227	35,374	64,830	63,294	83.2	81.6	13,096	5,723	1,282	3,881
	3 mos.	9,895	175,180	27,221	229,266	216,537	22,651	21,700	4,394	45,916	45,317	8,831	3,669	104,545	190,038	186,094	82.9	85.9	39,228	17,867	3,591	461
Penn.,-Reading S.S. Lines	March	338	578	54	648	670	183	191	25	136	140	26	7	495	874	877	134.8	131.0	—226	78	—474	—411
	3 mos.	338	1,672	157	1,884	1,770	525	551	77	376	397	78	23	1,444	2,527	2,544	134.1	143.8	—643	232	—1,391	—1,392
Piedmont & Northern	March	126	466	....	477	507	47	43	5	41	39	10	31	99	259	238	54.2	47.0	218	98	56	79
	3 mos.	126	1,452	....	1,489	1,528	136	125	14	116	98	29	96	287	750	689	50.4	45.1	739	351	296	260
Pittsburgh & West Virginia	March	132	782	....	794	752	153	153	27	154	162	45	76	216	659	685	83.0	91.0	135	27	100	62
	3 mos.	132	2,344	....	2,371	2,076	445	424	82	453	473	136	228	652	1,952	1,998	82.4	96.3	418	154	231	117
Reading	March	1,303	8,632	677	9,980	9,385	1,188	1,084	189	1,850	1,871	482	199	198	7,903	7,832	79.2	83.5	2,077	754	786	613
	3 mos.	1,303	25,392	1,644	28,884	26,666	3,421	3,084	566	5,630	5,262	1,441	581	570	23,534	22,671	81.5	85.0	5,349	1,864	1,834	1,783
Richmond, Fred. & Potomac	March	118	1,324	492	2,243	2,268	176	160	34	260	299	67	29	632	1,275	1,434	56.8	63.2	968	560	329	259
	3 mos.	118	3,978	1,438	6,469	6,226	509	484	90	857	887	200	89	2,088	4,015	4,252	62.1	68.3	2,455	1,432	771	563
Rutland	March	391	345	....	374	427	74	83	8	62	63	18	27	154	348	367	93.1	86.1	26	30	—5	24
	3 mos.	391	1,000	....	1,078	1,173	224	233	27	178	184	54	82	454	1,021	1,072	94.7	91.4	57	91	—35	—5
St. Louis-San Francisco	March	4,557	9,838	176	10,817	10,472	1,463	1,676	98	1,611	1,638	592	572	4,007	8,035	8,156	74.3	77.9	2,781	1,168	1,374	1,399
	3 mos.	4,557	26,743	569	29,606	28,534	4,493	4,702	419	4,836	4,906	1,804	1,073	11,887	24,128	23,605	81.5	82.7	5,479	2,155	2,753	2,563
St. Louis-S. F. & Texas	March	143	457	—3	468	464	23	30	4	26	26	1	22	146	231	243	49.3	52.3	237	93	71	65
	3 mos.	143	1,371	2	1,423	1,367	90	73	12	90	85	4	67	439	725	707	51.0	51.7	697	273	213	206
St. Louis Southwest. Lines	March	1,554	5,848	....	5,921	5,737	601	604	80	723	674	213	183	1,806	3,499	3,518	59.1	61.3	2,422	1,102	1,306	949
	3 mos.	1,554	16,897	1	17,095	15,917	1,708	1,770	229	2,047	1,968	626	551	5,381	10,202	10,244	59.7	64.4	6,892	3,020	2,984	2,407
Savannah & Atlanta	March	144	343	....	360	323	49	56	2	71	66	19	17	119	270	259	75.0	80.3	90	40	39	32
	3 mos.	144	966	....	1,011	935	140	160	5	198	184	58	50	340	769	749	76.0	80.1	242	100	104	105
Seaboard Air Line	March	4,147	11,772	1,374	14,454	14,396	1,819	1,767	209	2,497	2,480	730	478	5,117	10,629	10,358	73.5	72.0	3,826	1,730	1,845	1,942
	3 mos.	4,147	34,305	3,972	14,830	41,401	5,257	5,118	618	7,717	7,554	2,185	1,421	14,927	31,445	30,740	75.2	74.2	10,385	4,709	4,841	5,119
Southern Railway	March	6,267	21,035	774	23,609	23,755	2,896	3,360	314	3,957	3,952	973	514	7,270	15,891	16,182	67.3	68.1	7,717	3,459	3,365	3,578
	3 mos.	6,267	59,539	2,696	67,203	66,187	8,213	10,038	929	11,435	11,487	2,963	1,521	21,711	46,525	47,800	69.2	72.2	20,678	9,257	8,995	8,542
Alabama Great Southern	March	328	1,193	29	1,387	1,288	283	294	36	382	348	81	42	514	1,331	1,323	95.9	102.7	57	341	—382	—221
	3 mos.	328	3,647	109	4,195	4,088	819	781	106	976	955	244	125	1,520	3,749	3,635	89.4	88.9	446	531	—341	—46
Cinn., N. O. & Texas Pac.	March	337	3,123	67	3,434	3,484	619	641	71	825	807	220	84	935	2,659	2,662	77.4	76.4	776	333	526	587
	3 mos.	337	8,761	246	9,673	9,925	1,785	1,779	212	2,313	2,249	681	250	2,778	7,694	7,499	79.5	75.6	1,979	849	1,399	1,690
Georgia Southern & Florida	March	397	677	27	795	883	194	153	11	78	86	10	22	253	609	601	76.6	68.1	186	46	—11	80
	3 mos.	397	2,012	102	2,368	2,597	547	426	33	225	246	31	68	767	1,781	1,689	75.2	65.0	586	133	—28	235
New Orleans & Northeastern	March	203	819	23	921	865	201	221	23	214	207	88	27	256	780	800	84.7	92.5	141	81	90	22
	3 mos.	203	2,165	86	2,459	2,671	544	642	70	631	611	271	82	796	2,282	2,329	92.8	87.2	177	254	70	146
Southern Pacific	March	8,066	44,003	1,981	48,550	46,958	5,289	5,347	490	10,344	10,179	2,548	720	16,929	35,307	35,776	72.7	76.2	13,243	7,108	6,460	5,124
	3 mos.	8,066	119,671	5,966	133,480	128,547	15,222	15,022	1,442	29,386	27,592	7,668	2,268	49,255	102,313	100,710	76.7	78.3	31,167	16,337	14,627	12,742
Texas & New Orleans	March	4,092	10,943	238	11,881	12,216	1,819	2,173	133	1,703	1,694	201	253	4,198	8,574	9,005	72.2	73.7	3,307	1,317	706	808
	3 mos.	4,093	30,684	739	33,314	34,060	5,339	5,738	432	5,032	4,889	610	726	12,320	25,193	25,609	75.6	75.2	8,121	3,247	1,334	1,900
Spokane International	March	150	334	....	346	408	60	61	3	36	31	10	4	74	184	186	53.0	45.5	163	93	61	89
	3 mos.	150	788	....	815	883	139	132	12	89	97	30	13	198	468	485	57.4	54.9	347	183	112	152
Spokane, Portland & Seattle	March	936	2,580	62	2,837	2,775	449	451	58	504	458	129	35	1,057	2,172	2,070	76.6	74.6	665	253	388	374
	3 mos.	936	7,068	203	7,798	8,004	1,189	1,276	170	1,483	1,428	386	111	3,075	6,247	6,107	80.1	76.3	1,551	736	522	965
Tennessee Central	March	284	339	....	367	364	45	43	5	54	52	21	15	126	263	259	71.6	71.2	104	25	32	39
	3 mos.	284	932	....	1,010	1,060	140	115	15	161	162	64	45	371	787	772	78.0	72.9	223	77	16	95
Texas & Pacific	March	1,828	5,687	265	6,620	6,711	789	867	98	1,106	1,067	281	234	2,614	5,113	5,123	77.2	76.3	1,507	683	389	480
	3 mos.	1,828	16,184	846	18,819	19,275	2,193	2,280	296	3,250	3,229	843	684	7,685	14,918	14,974	79.3	77.7	3,900	1,688	864	1,119
Texas Mexican	March	161	271	....	300	377	48	58	6	37	36	11	12	83	202	221	67.3	58.6	98	43	11	45
	3 mos.	161	720	....	783	884	152	169	18	103	101	34	37	241	602	634	76.9	71.6	181	89	21	41
Toledo, Peoria & Western	March	239	647	....	671	651	72	84	7	55	41	13	53	191	412	398	61.5	61.1	258	121	82	82
	3 mos.	239	1,837	....	1,905	1,828	220	218	20	156	147	40	156	532	1,185	1,153	62.2	63.1	720	320	199	196
Union Pacific	March	9,747	38,137	1,776	42,963	45,031	5,022	5,622	683	7,948	8,352	2,370	1,262	14,351	30,755	32,264	71.6	71.6	12,207	7,534	3,152	3,721
	3 mos.	9,744	106,011	5,418	120,018	124,603	14,030	15,555	2,130	23,487	24,436	7,101	3,795	42,669	90,533	93,227	75.4	74.8	29,485	18,949	6,098	8,608
Wabash	March	2,413	8,335	394	9,758	10,247	912	1,182	124	1,394	1,509	470	323	4,545	7,647	8,231	78.4	80.3	2,111	707	607	497
	3 mos.	2,443	24,217	1,223	28,285	29,182	2,854	3,489	349	4,258	4,316	1,417	995	13,303	22,779	24,075	80.5	82.5	5,505	2,094	1,143	1,125
Ann Arbor	March	294	644	....	648	725	31	78	7	157	170	45	35	359	607	676	93.6	93.2	41	58	—42	—21
	3 mos.	294	2,130	....	2,144	2,125	183	241	12	489	464	134	96	1,102	1,933	1,944	90.1	91.5	212	173	—46	—13
Western Maryland	March	843	3,948	....	4,070	4,627	662	604	54	880	818	301	123	1,401	3,289	3,161	80.8	68.3	781	437	622	1,016
	3 mos.	843	12,026	....	12,362	12,290	1,897	1,722	166	2,560	2,522	903	359	4,071	9,540	9,316	77.2	75.8	2,823	1,673	2,158	2,339
Western Pacific	March	1,188	4,412	142	4,651	4,913	600	491	84	761	688	223	260	1,684	3,614	3,341	77.7	68.0	1,037	487	494	759
	3 mos.	1,188	12,039	429	12,750	13,094	1,693	1,493	237	2,121	2,033	677	799	4,859	10,468	9,677	82.1	73.9	2,282	1,177	1,027	1,706
Wisconsin Central	March	1,031	2,669	13	2,880	2,749	311	339	43	468	465	108	109	1,187	2,230	2,287	77.4	83.2	650	193	235	99
	3 mos.	1,031	7,387	41	7,907	7,508	906	943	148	1,301	1,374	329	319	3,559	6,529	6,596	82.6	87.9	1,378	585	77	—103



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Shippers' Guide

Baltimore & Ohio

. . . New "Tofcee" Equipment

Has received specially equipped cradle cars and bodies for its new "demountable body" containerized piggyback service. Installation of cranes at St. Louis, Philadelphia and Jersey City, and modification of facilities at Baltimore and Washington, will facilitate transfer of the demountable bodies from flat cars to wheeled highway bogies.

Has placed in service 60 new 40-ft "Tofcee" (piggyback) flat cars; and is converting, in its own shops, enough additional 110-ft "wheel-pocket" cars to bring its total fleet of that type to 35.

Canadian Pacific

. . . Freight Schedules

Has issued updated folder (C.S. 17) listing condensed schedules of fast freight trains.

Chesapeake & Ohio

. . . Service Changes

Has established direct LCL merchandise car from Grand Rapids, Mich., to Syracuse, N.Y. (NYC); inaugurated substitute highway truck service out of Grand Rapids to Bangor, Fennville and So. Haven, Mich.; and extended substitute truck service out of Benton Harbor, Mich., to include La Porte, Ind. Has discontinued direct LCL car lines from Grand Rapids to Buffalo (NYC), and between Grand Rapids and La Porte in both directions. Has also discontinued substitute highway truck service out of Benton Harbor to Bangor, Fennville and So. Haven.

Green Bay & Western

. . . Extends Piggyback

In connection with the Soo Line, GB&W has established overnight piggyback service between Green Bay, Wis., and St. Paul, Minn.

Illinois Central

. . . Shortens Schedules

Has established a direct connection with the Pennsylvania at Chicago (Grand Crossing) which will, in many cases, provide 24-hr faster through freight service between western, southern and eastern points. Has joined with the Meridian & Bigbee and connections beyond in adjustment of freight schedules to improve by 24 hr service between points west of Meridian, Miss., and the Southeast.

. . . Extends Piggyback

Has inaugurated TOFC service to and from Rockford, Ill.

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JULY, 1958

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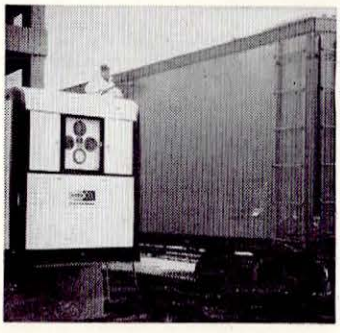

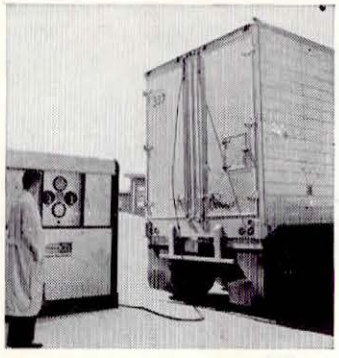

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Pureco Blast Chilling gives quick "pull-down".

Pureco carbon dioxide liquid sprayed into the truck or car reduces interior temperatures to sub-zero in seconds. The warm, moisture-laden air is flushed out and replaced with cold, dry vapor, preventing any "heat shock" from loading temperatures. Time consuming pre-cooling periods are shortened, and after loading pull-down periods of two to four hours are eliminated, resulting in savings in fuel and maintenance.

No special equipment is needed.

Pureco CO_2 *Blast Chilling* needs no special equipment . . . it works with what you now have . . . mechanical units, hold-over systems or "DRY-ICE".

Have a trial Blast Chilling demonstration.

Pureco would like to demonstrate *Blast Chilling* to you in *your plant* under *your working conditions* . . . with no obligation on your part . . . Pureco's Technical Sales Service will make the demonstration and provide any technical assistance you need to help solve your refrigeration problems efficiently and economically with Pureco CO_2. Call your local Pureco man for details or write to:

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MARKET OUTLOOK *at a glance*

Carloadings Drop 0.5% Below Previous Week's

Loadings of revenue freight in the week ended May 21 totaled 636,808 cars, the Association of American Railroads announced on May 26. This was a decrease of 3,146 cars, or 0.5%, compared with the previous week; a decrease of 49,344 cars, or 7.2%, compared with the corresponding week last year; and an increase of 66,383 cars, or 11.6%, compared with the equivalent 1958 week.

Loadings of revenue freight for the week ended May 14 totaled 639,954 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, May 14

District	1960	1959	1958
Eastern	93,284	103,190	85,915
Allegheny	111,937	132,337	96,819
Pocahontas	54,030	56,328	43,983
Southern	117,300	119,137	105,659
Northwestern	102,431	110,316	75,301
Central Western	111,427	119,892	105,835
Southwestern	49,545	51,796	47,528
Total Western Districts	263,403	282,004	228,664
Total All Roads	639,954	692,996	561,040
Commodities:			
Grain and grain products	44,097	48,368	44,457
Livestock	4,855	5,270	5,269
Coal	106,352	109,688	98,596
Coke	8,675	11,495	5,434
Forest Products	38,706	40,689	34,879
Ore	71,771	79,807	31,089
Merchandise l.c.l.	36,395	41,728	44,754
Miscellaneous	329,103	355,951	296,562
May 14	639,954	692,996	561,040
May 7	641,703	678,160	535,579
April 30	643,271	676,194	533,205
April 23	625,374	649,319	533,851
April 16	622,635	634,848	534,507
Cumulative total, 19 weeks	11,348,917	11,508,538	10,240,366

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended May 14 totaled 11,297 cars, compared with 8,708 for the corresponding 1959 week. Loadings for 1960 up to May 14 totaled 199,176 cars, compared with 142,489 for the corresponding period of 1959.

IN CANADA.—Carloadings for the seven-day period ended May 14 were not available as this issue went to press.

New Equipment

FREIGHT-TRAIN CARS

► *Rock Island.*—Ordered 300 40½-ft box cars and 250 50½-ft box cars from American Car & Foundry Division of ACF Industries, at a cost of more than $5,000,000. Deliveries will begin in September.

FOREIGN

► *Federal Railway System of Brazil.*—Will use the proceeds of an $8,000,000 loan from the Swiss Bank to re-equip and modernize its line.

► *Yugoslav National Railways.*—Will purchase 59 U.S.-made 1,800-hp diesel locomotives with a $14,800,000 loan from the Development Loan Fund, according to Foreign Commerce Weekly. DLF loaned Yugoslavia $5,000,000 last year for the purchase of 20 similar diesels (RA, Feb. 9, 1959, p. 31).

New Facilities

► *Canadian National.*—Ordered CTC equipment from Union Switch & Signal for installation on 9.5 miles of track near the new Montreal classification yard.

► *Chesapeake & Ohio.*—Ordered Traffic Control Center and CTC equipment from Union Switch & Signal for installation between St. Albans and Crown Hill, W. Va., 31 miles.

► *Chicago Transit Authority.*—Will build a new service and inspection shop for maintenance of rapid transit cars at Forest Park, Ill., at an estimated cost of $750,000. Shop will accommodate 12 cars at a time, will be designed for service, maintenance and repair work on a production-line basis. CTA will advertise for bids about June 15. Construction will take approximately 15 months.

► *Denver Union Terminal.*—Will install 1,200-ft belt conveyor between terminal and adjacent Post Office annex, for expedited movement of mail between the two points. Cost of installation and required facility modifications will be approximately $200,000. Conveyor is being installed by Standard Conveyor Company, North St. Paul, Minn. Terminal is also installing new NX one-tower interlocking plant designed and fabricated by General Railway Signal. Cost will be approximately $850,000.

Maintenance Expenditures

► *Up 0.9% in March.*—Expenditures by Class I roads for maintenance of equipment, way and structures in March were up about $2.3 million, compared to the same month in 1959, according to report of AAR Bureau of Railway Economics summarized below:

	March 1960	March 1959	% Change
Maintenance of Way and Structures	$103,055,986	$103,487,878	—0.4
Maintenance of Equipment	157,107,244	154,388,218	+1.8
Totals	260,163,230	257,876,096	+0.9

a RAILWAY AGE time-saver page

People in the News

BALTIMORE & OHIO.—**V. N. Dawson,** purchasing agent, Baltimore, Md., retires May 31 after more than 50 years of service.

CANADIAN NATIONAL.—**D. F. Mills** appointed regional analytical services officer, Central region, Toronto, Ont. Mr. Mills will be responsible to the regional vice president for engineering economics, transportation economics, costing of services and statistics.

CENTRAL OF GEORGIA.—**G. E. Johnston,** division freight agent, Columbus, Ga., appointed assistant general freight agent there and is succeeded by **L. S. Wood, Jr.,** commercial agent. **W. P. Coleman,** Pacific Coast agent, San Francisco, named Pacific Coast traffic manager and his former position abolished. **W. K. Kellaris, H. H. Plant** and **Leland H. West,** commercial agents at Los Angeles, San Francisco and Portland (Ore.), respectively, appointed general agents at those points. **J. H. Tison,** commercial agent, Jacksonville, Fla., named assistant Florida freight agent there and his former position abolished.

W. P. Haynes, assistant comptroller and auditor disbursements, Savannah, Ga., appointed comptroller, succeeding **L. H. Barry,** who retired April 30. **Joseph Pape,** assistant to comptroller, appointed assistant comptroller. **W. J. Cleary,** assistant to auditor of disbursements, promoted to auditor of disbursements. **A. B. Conaway,** traveling auditor, succeeds Mr. Cleary.

CHESAPEAKE & OHIO.—**E. T. Rucker,** regional manager, Northern region, Detroit, Mich., transferred to the Central region, Huntington, W.Va., succeeding **Robert G. Vawter,** who retires May 31. **W. K. Weaver, Jr.,** general superintendent transportation, Huntington, succeeds Mr. Rucker at Detroit. **E. G. McDougle,** assistant to vice president, Huntington, succeeds Mr. Weaver. **K. T. Reed,** assistant regional manager, Central region, Huntington, named assistant chief mechanical officer, Richmond. **P. G. Shepherd,** assistant to regional manager, Central region, Huntington, appointed assistant regional manager there. **C. H. Manning,** superintendent, Newport News, Va., named assistant to vice president, Huntington. **C. S. Savage,** assistant superintendent, Newport News, promoted to superintendent there.

A. W. Duke, assistant superintendent car accounts and car records, Huntington, retired April 30.

U. H. Auckerman, assistant signal engineer, Richmond, appointed assistant engineer—signals, succeeding **Russell H. Behymer,** retired. **P. L. Wheeler,** circuit engineer, succeeds Mr. Auckerman as assistant signal engineer. **M. H. Sims,** signal inspector, succeeds Mr. Wheeler as circuit engineer.

CHICAGO & EASTERN ILLINOIS.—**Glen E. Morgan,** chief personnel officer, Chicago, elected director of personnel and public relations.

C. E. Crispin, traffic representative, St. Louis, appointed freight sales manager, Terre Haute, Ind., to succeed **T. A. Cronin,** named assistant freight sales manager, Chicago.

DENVER & RIO GRANDE WESTERN.—**John J. Martin** named fuels and lubricants engineer, Denver.

FRISCO.—**Willard R. Eilers,** merchandise agent, appointed manager trailer-on-flat-car service, St. Louis. **Thomas J. Toughey,** district manager-sales, East St. Louis, Ill., transferred to Minneapolis.

GREAT NORTHERN.—**M. V. Schoonover,** general agent, freight department, Spokane, Wash., promoted to industrial development agent, Seattle, Wash.

LOUISVILLE & NASHVILLE.—**Lawrence E. Estill** appointed freight traffic agent, Cincinnati.

NICKEL PLATE.—**William E. Ruby,** general yardmaster, Lima, Ohio, appointed trainmaster, St. Louis division, at Charleston, Ill., succeeding **Clyde L. Eyrse,** retired.

Malcolm S. Baker, general agent, Tulsa, Okla., appointed general freight agent, St. Louis, Mo., succeeding **H. Easterday,** who retires May 31. **J. P. Carter** succeeds Mr. Baker. The sales force at St. Louis, heretofore under the supervision of Mr. Easterday, is under jurisdiction of **E. F. Schier,** freight traffic manager.

RICHMOND, FREDERICKSBURG & POTOMAC.—**Josiah A. Stanley, Jr.,** general auditor, Richmond, Va., elected comptroller, succeeding **Leland L. Miller,** retired (RA, May 9, p. 27).

John W. Ziesemer, assistant general auditor, appointed assistant comptroller. **Lee L. Nichols,** assistant to general auditor, named assistant to comptroller.

SEABOARD.—T. C. Wheeler, assistant superintendent, South Florida division, Mulberry, Fla., transferred to the Carolina division at Savannah, succeeding **B. C. High,** promoted to division superintendent, Tampa (RA, May 23, p. 37). **T. B. Renfrow,** trainmaster, Richland, Ga., succeeds Mr. Wheeler.

SOUTHERN.—Joseph E. Todd, division freight agent, Sheffield, Ala., promoted to assistant general freight and passenger agent, Anniston, Ala., succeeding **Earl L. Dearhart, Jr.,** promoted to assistant vice president—traffic, Washington, D.C. (RA, May 16, p. 62). **Ernest S. Hughes, Jr.,** district freight and passenger agent, Minneapolis, Minn., succeeds Mr. Todd at Sheffield. **James W. Hagen,** commercial agent, Birmingham, Ala., promoted to succeed Mr. Hughes.

OBITUARY

Charles E. Gudgell, superintendent, **New Orleans & Lower Coast,** died May 19 at his home in New Orleans.

Leo Casey, 60, public relations director of the **New York City Transit Authority,** died May 23 in St. Claire's Hospital.

Supply Trade

Joseph A. Wiendl, assistant general manager of sales, for **Ingersoll-Rand Co.,** New York, appointed general manager of sales.

Walter C. Kavanaugh has been appointed product sales manager—containers for **Fruehauf Trailer Co.** Mr. Kavanaugh, who was formerly product sales manager—vans, will be responsible for all phases of Fruehauf's rapidly growing containerization program which integrates transportation between road, rail and steamship.

Albert T. Peagan, former vice president and general manager of the **New Haven,** has joined the staff of **Ford, Bacon & Davis, Inc.,** New York consulting engineering firm.

Industrial Traffic

Bernard Ponessa, assistant general traffic manager, **Phelps Dodge Corp.,** New York, has been appointed general traffic manager, succeeding **James W. Lee,** who retires May 31.

Elmer C. Pritz, assistant manager, traffic department, Standard Oil Co. (Indiana) at Chicago, retired May 15.

Des Goodwin, assistant general traffic manager, **Burroughs Corp.,** Detroit, Mich., has been appointed corporate traffic manager, succeeding **T. W. Kimmerly,** retired.

Harold E. Duffy, traffic manager, **New York & Pennsylvania Co.,** has been named general traffic manager, Johnsonburg, Pa. **Allan R. Wycoff** has been named traffic manager—rates. **William M. Kicher** has been appointed traffic manager—mill service and **Roger A. Yaple** has been named special assistant to general traffic manager.

Glen E. Morgan
C&EI

Walter C. Kavanaugh
Fruehauf

Marshall M. Parkhurst, traffic manager, **International Harvester Co.,** Chicago, has been appointed general traffic manager, succeeding **Anton C. Friedsam,** retired.

John J. De Laney, director of transportation and assistant to the president of the **American LaFrance Corp.,** Elmira, N.Y., retired May 1.

Frank W. Dalglish has been appointed Pacific Coast traffic manager, **Boyle-Midway Division** of **American Home Products Corp.,** Los Angeles, Cal., succeeding the late **Luther R. Chancellor.**

Lee Cisneros, general traffic manager, **Godfrey L. Cabot, Inc.,** has been promoted to director of traffic and sales services, Boston, Mass.

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Big TOFC Debate: The Future

► **The Story at a Glance: Piggybacking, a strong growth element in 1960 railroad traffic, is continuing its record-setting pace on many railroads.**

At the New York Railroad Club's May meeting, chief traffic officers of three eastern roads agreed that piggyback-container business is growing stronger by the month. Present loadings are running from 33% to 53% above comparable 1959 levels.

But one point of disagreement persists: Should railroads seek an alliance with motor carriers under Plan I, as those carriers suggest, or will Plan I eventually be hammered out of existence by the boom in Plans II, III, and IV?

The running debate between railroads over the merits of Plan I piggyback shows few signs of diminishing. As a rule, railroads that offer this service to motor common carriers like it; those without it apparently intend to stay that way.

This division in railroad thinking, in evidence now for about six years, was pointed up again at the May 19 meeting of the New York Railroad Club. The chief traffic officers of the two largest roads in the East outlined their views this way:

Fred Carpi, vice-president, sales, of the PRR, said 43% of his road's Truc-train service is Plan I business. "We firmly believe that it would be to the best interests of our industry if all roads participated in all forms of [piggyback] service—Plans I, II, III and IV," Mr. Carpi said.

Arthur E. Baylis, vice-president, freight sales and service, NYC, said his own experience with Flexi-Van service to date suggests that Plan I is "the least beneficial to the railroads . . . it appears to place railroads too much at the mercy of the trucker . . . and it may be expected to ultimately disappear and be replaced with other plans."

The NYC and PRR officers were members of a four-man panel. Other participants were J. W. Phipps, Jr., traffic vice-president of the B&O, and E. V. Hill, chairman, Traffic Executives Association, Eastern Railroads.

Apart from the differing opinion over Plan I, however, there was close agreement on nearly every other phase of piggyback operation. Mr. Carpi believes piggyback may be on the threshold of "explosive" growth. Mr. Baylis thinks piggyback-container service has "unlimited" future. Mr. Phipps feels that piggybacking is an "ideal" competitive weapon with which to stem the decline in the rails' share of intercity freight business.

Mr. Phipps, who declined to discuss B&O traffic figures, pointed out that 57 railroads now offer piggyback service and that 415,156 containers and trailers were handled by all roads in 1959. With piggyback revenues now amounting to 2% of Class I railroads' gross, the service is turning a profit on most roads. One thing that contributes to meeting overhead cost is high car utilization, he noted.

Mr. Carpi reported that his road handled almost 80,000 trailers in Truc-Train service in 1959, and said traffic was up one-third in the first quarter of 1960. He said 32% of the PRR's piggyback service is with railroad-owned trailers, 24% is shipper-owned trailers, and the remainder is Plan I.

The PRR traffic officer said the full potential of piggybacking can only be realized if all roads provide all forms of the service. He urged also that railroads providing TOFC be on guard against imposition of uneconomic or burdensome restrictions by legislative or administrative bodies.

As a further prerequisite to growth, there is need for a national trailer pool that can be tapped by railroads, forwarders, shippers, Railway Express and trucking companies, Mr. Carpi continued.

"I am glad to report that this is being studied in several quarters," he added.

Mr. Baylis picked up the theme of piggybacking's "strengths and weaknesses" by pointing out that the service offers customers economy, coordination, and dependability. Additional advantages, he said, include freedom from claims, better scheduling of deliveries, inventory reductions, consolidation of responsibility, precise selection and design of equipment and, under Plans III and IV, sharing of equipment ownership and control with the shipper.

There are, however, certain weaknesses in the way piggyback is presently being performed, Mr. Baylis said.

Among these he listed failure of carriers to get together, as yet, on uniform standards, rules, procedures, equipment handling methods and charges. Lack of flexibility in pricing and in marketing is another drawback, as is the lack of territorial definition and the lack of forceful rate-making.

As The Publisher Sees It . . .

The other day I made a round trip between two major cities ideally distant for daytime rail travel. Going, the train departed from its initial terminal 40 min. late, lost time progressively, and arrived 1 hr. 6 min. behind time. The passengers were fuming, the crew was grumpy and the dining car staff desultory.

The return trip next day was just the opposite. The train operated on the dot, the crew was cheery and the diner was a pleasure to patronize. Most rail travelers are familiar enough with this inconsistent quality of service. Real trouble is that most shippers know the same undependability often exists in freight movement. One car will move like clockwork; the next upsets production or marketing plans.

One very successful railroad has as its slogan "Precision Transportation" and reputedly lives up to it not only on its limited passenger operation but on its vast freight operation, too. I wonder if this carrier's success isn't related to some substantial degree to its fulfillment of "Precision Transportation."

After all, can any reader recall dealing consistently with any concern whose service was undependable? Can he name a successful business enterprise whose service is inconsistent and irregular? It seems to me that attention to the service angle may offer as much or more opportunity for the retention and recapture of traffic than adjustment of rates and fares. Maybe the need for rate reductions would be lessened if the quality of the product were improved.

Robert S. Lewis

# of Plan I

The NYC officer said more streamlined methods of pricing are needed because the normal conference method "appears to be too slow and rate suspensions are all too frequent." Instead of protecting themselves from each other, and competing with each other for *rail* business, the need is to develop rates and pricing for the common railroad welfare against a common competitor, the trucks.

"Each carrier offering (this) service must devise more forceful ways of making rate presentations so rates become effective and suspensions and delays are minimized. It is quite obvious that piggyback, no matter how good, cannot be sold in abundance unless it is properly priced to the customer," Mr. Baylis declared.

Mr. Baylis said NYC's Flexi-Van experience suggests that Plan II service "provides the greatest overall possibilities for piggyback growth," because it combines the advantages of mass transportation by rail with complete terminal services at origin and destination—all at attractive low, competitive rates.

The NYC, beginning with this type service early in 1958, handled 4,873 vans in the 8½ months. Loadings increased rapidly in 1959, and 1960 is better yet. April volume (2,805 vans) was up 53% over April a year ago.

Plans III and IV have growth potential, too, Mr. Baylis said, because they provide low ton-mile rates to customers while railroads save in terminal expense. Particularly where two-way loaded hauls occur, Plan III "will probably grow faster than Plan II." As to Plan IV, there fewer customers are likely but volume will be heavy.

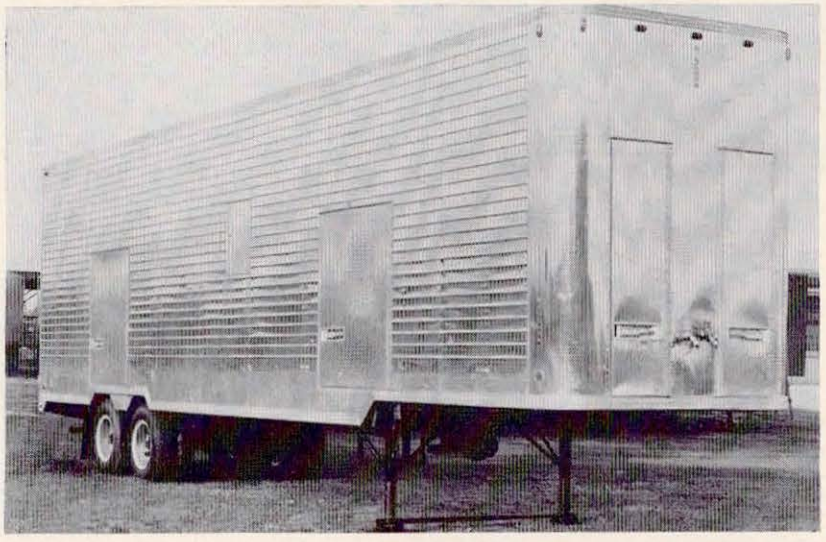
Both Mr. Carpi and Mr. Baylis agreed that Plan V, calling for joint arrangements with motor common carriers, has little appeal to their lines at this time.

Mr. Baylis recommended that railroads cooperate in establishing uniformity, not alone in rates and services, but in equipment and terminal design as well.

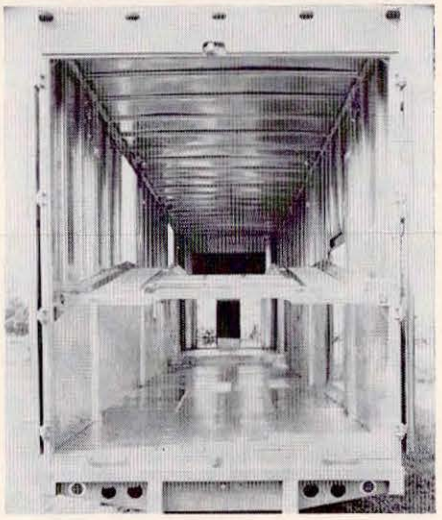
"Probably the most crying need now is for greater uniformity in equipment and terminals," he said. Since interchange is vital, uniformity is a "must" for growth.

"The experience of the past five years leads me to predict that uniformity for the future will not be based on loading via end ramps; rather, it appears that standardization will be progressed through side-loading or top-lift loading and probably through the handling of containers or vans without wheels."

New Auto-Freight Van



▲ New Kingham Auto-Freight Van provides enclosed, weathertight transportation for four new automobiles or a maximum of 45,000 lb of dry freight.



▶ Ramps, pictured in position for auto loading, can be raised to the roof for general commodity loading. Available loading height varies from 84 to 97 inches.

A 40-ft closed trailer capable of handling either four full-sized automobiles or a maximum 45,000 lb of dry freight has been developed by Kingham Trailer Co. as its approach to whipping the empty-return-move problem in auto-TOFC.

Upper deck ramps in the van can be raised to the roof to provide a variable inside loading height of 84 to 97 inches. Ramp placement is a one-man operation which makes use of a geared winch to adjust the ramps for auto loading or hoist them out of the way for general commodity loading.

Kingham, a Louisville, Ky., trailer manufacturer, is hoping for wide acceptance of the closed van design for shipment of larger, more expensive cars—which auto companies are reportedly reluctant to ship over long distances in certain regions in conventional open transports.

A second major advantage, the company points out, lies in the versatility of the van and its potential for increasing trailer utilization—by eliminating empty return hauls and by providing an all-purpose unit for general loadings during slack periods in automobile production.

Kingham puts it this way:

"The new Piggyback Auto-Freight Van can put a railroad into the automobile transport business on a sound economic basis . . . Automobile manufacturers are most anxious for the railroads to resume transportation of cars, because only [the railroads] can provide the fastest, surest service . . . These closed vans will not only open up this big source of income, but will also work for a piggyback operation 100% of the time."

Kingham started developmental work on the new unit last year, and thus far has built 31 of the dual-purpose vans.

You Ought To Know...

A $96 million middle-income housing project will be built over NYC's Mott Haven yards in New York City under terms of an agreement disclosed last week. The railroad has leased air rights over the yards to the Amalgamated Meat Cutters and Butcher Workmen of North America, AFL-CIO, sponsor of the project. NYC reportedly will collect $750,000 a year in rent when the 5,206-family development is completed. Twenty-two 20-story apartment buildings will be erected on a concrete platform covering the yards, which are 40 ft. below street level.

A single federal transportation agency is the aim of a bill introduced in the Senate last week by Senator Clifford Case of New Jersey. The bill would transfer the functions of the Federal Maritime Board, the Maritime Administration, the Bureau of Public Roads, the Defense Air Transportation Administration, and the FAA directly to the new agency. It would also pave the way for determining what non-regulatory functions of the ICC and CAB could be transferred to the new agency.

A government-sponsored pilot study on mass transportation in the New York metropolitan area has been endorsed by the Senate Interstate and Foreign Commerce Committee. The proposed $75,000 study would be made by an outside group of transportation specialists.

Quarterly reports, instead of monthly ones, will be required of Class I railroads, effective for the year 1961, if a proposed amendment to the ICC's 49 C. F. R. 122.3, Operating Statistics, is approved. This would affect reports on freight train performance, passenger train performance, yard service performance, revenue traffic, fuel and power statistics, and motive power and car equipment.

J. C. Laney is back on the job as Local Chairman of BLE Division 156 on the L&N at Birmingham, Ala. The outspoken Laney reneged on his offer to resign and threatened to go to court over his suspension from office. Grand Chief Guy L. Brown withdrew his suspension order and Laney has been reinstated "pending further investigation." BLE spokesmen indicate that the matter has been dropped as far as they are concerned and that Laney can finish out his term of office unless he again goes counter to official BLE policy.

America's first diesel - powered, streamlined train, Burlington's "Pioneer Zephyr," went into retirement last week. On May 26, 1934, the "Pioneer made its historic, dawn-to-dusk run from Denver to Chicago (1,015 miles in 13 hr, 5 min). CB&Q marked the 26th anniversary of the event by placing the train on permanent exhibition at the Chicago Museum of Science and Industry.

Santa Fe will run a "Decompression Special" for members of the press, radio and television attending both the Democratic and Republican national conventions. The "Super Chief," leaving Los Angeles on July 17, will be reserved exclusively for the press. Says the Santa Fe, "For 39½ hours you can escape the tyranny of telephones and deadlines and arrive (in Chicago) refreshed to tackle the reporting of the Republican convention."

ICC hearings on the IC-SP proposed purchase of the John I. Hay Co. barge line were resumed at St. Louis last week. Opposition witnesses appeared on behalf of the American Waterways Operators of Washington, Federal Barge Lines of St. Louis and an intervening petition was filed by the Air Transport Association. Witnesses supporting the acquisition were heard in Washington in March.

Western Pacific "Zephyrettes," which the road is seeking to take off, will be continued for a four-month period beginning June 1. That will permit the ICC to investigate the proposed discontinuance as provided by the 1958 Transportation Act.

The Milwaukee Road proposed a June 1 commuter fare increase and met no opposition at Illinois Commerce Commission hearings last week. Riders were content to go along with the proposed 26% fare increase if the railroad sticks by its promise to buy 25 double-deck, air-conditioned coaches immediately and another 50 when earnings permit. Milwaukee hopes for $750,000 additional revenue on its commuter service if the fare increase is granted.

A loan-guaranty application has been filed with the ICC by the Norfolk Southern. The road is seeking guaranty for a $2,000,000 loan to reimburse its treasury for expenses made for additions and betterments.

COMING UP . . .

June 13: How to control car damage

Railroads and shippers wage eternal war against freight loss and damage. Less publicized, but enormously expensive for railroads, is the damage to cars caused by impacts in yards. Here's what's being done to reduce, or eliminate, this drain upon the railroad purse.

July 4: Yards—Modernize or build new?

Economics, of course, plays a vital role in deciding whether to revamp an old yard or build a new one. Underlying any decision is the basic consideration of whether land is available or not.

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What Principles for Freight Rates?

What principles of rate-making do experienced traffic officers—railroad and industrial—believe railroads should follow?

It is quite evident that railroad rate-making practices so far prevailing are, on the average, unsatisfactory—from the viewpoint of the railroads and their patrons alike. As long as each year sees railroads hauling a smaller percentage of the nation's ton-mileage than in the preceding year, the conclusion is unavoidable that railroad pricing needs effective revision. Quality of service is an important factor also—but realistic pricing is certainly no less important.

A friendly and highly competent "outside" observer, Professor Ernest Williams (who was largely responsible for the analysis which led to the recent Commerce Department report on transportation) remarked in a recent address: *As yet no philosophy for reordering the rate structure has put in its appearance, much less received acceptance.*

Knowledgeable traffic officers are thinking and inquiring more deeply in this area than they have done at any time in at least a couple of generations. It would accelerate a solution to this critical problem if the creative thinking of experienced traffic officers were more specifically stated and were widely disseminated and understood. We extend the hospitality of these pages to such traffic officers. In the hope of priming the pump for such discussion, we venture a few observations of our own, viz.:

- The "floor" under every item in a scale of rates should be a slight fraction above railroad direct costs (not ICC out-of-pocket costs, which include some return on investment and other fixed costs. Such costs, if adopted as a "floor," will price railroads out of some traffic which it would be profitable for them to handle).

- The "ceiling" on every item in a scale of railroad rates should, where railroad direct costs permit, be a figure slightly below the cost of moving the traffic by an efficient truck operation. (The private truck is the ultimate competitor—hence it is truck costs, not rates of for-hire trucks, which are controlling.)

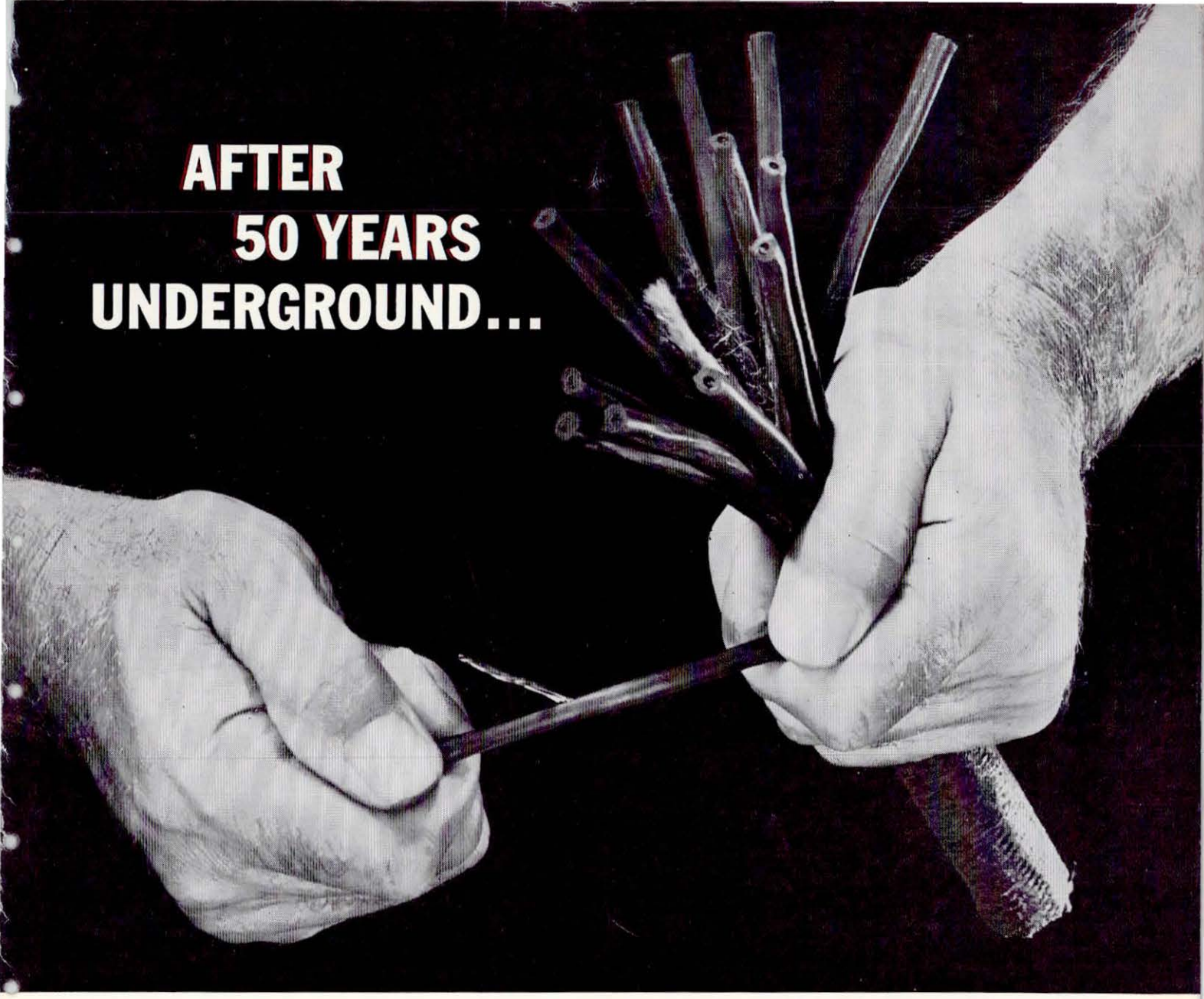
- "Value of service" considerations are as valid in railroad rate-making as they were before the days of highway competition—the big difference being that the ceiling on rates on high-value commodities used to be a lot higher than it can be now, when any shipper or receiver can provide his own transportation service at a cost which is by no means prohibitive. There are many hauls (especially heavier weights and longer distances) where railroad direct costs are far below costs of movement by other forms of transportation—and on these items railroad rates should be priced substantially above direct railroad costs. Only in this way can railroads get the revenue to defray their constant costs.

- The class rate progressions now prescribed for railroads are hard to justify. They often appear unduly high for the shorter distances, where highway competition is most severe, and unduly low for longer distances.

- Compulsory classification of commodities is more elaborate than desirable for present-day conditions. The principal factors that need to be considered in classification are: (1) kind of cars required; (2) "loadability" (e.g., weight in relation to space occupied); (3) empty return ratio; (4) added costs entailed (e.g., loss and damage, or insurance risk). There's no longer any point in classifying commodities in relation to their market value.

- It is becoming increasingly impracticable to maintain "rate relationships" or group origins and destinations, *except under "agreed charges" or some other contractual arrangement with shippers.* (Maintenance of "rate relationships" and group rates means that some hauls are undercharged in relation to railroad costs and some are overcharged. In the absence of a contract, railroads with such rates usually lose the overpriced hauls and retain only those that don't pay their way.)

The foregoing are not all the principles which should govern railroad pricing, in today's competitive traffic market—but, as far as they go, what's wrong with them? Suggestions from experienced traffic people (railroad or industrial or regulatory) for deletions or additions to the list will be welcome.



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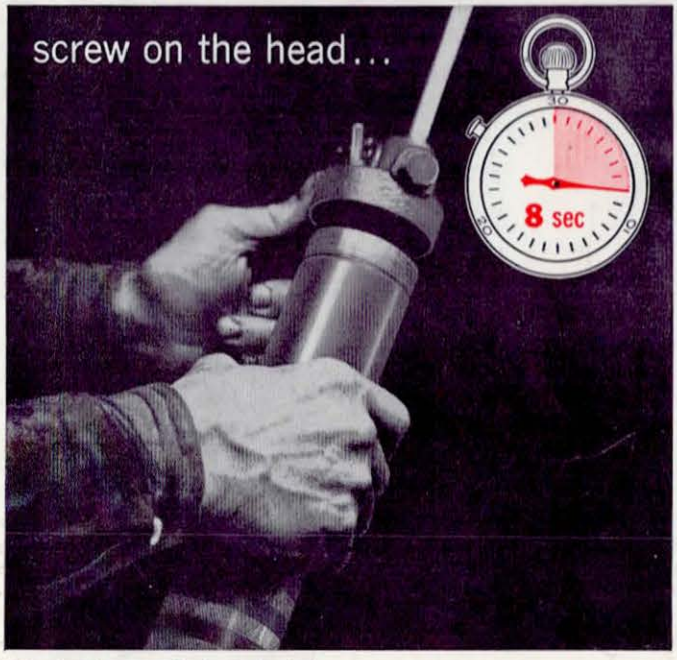

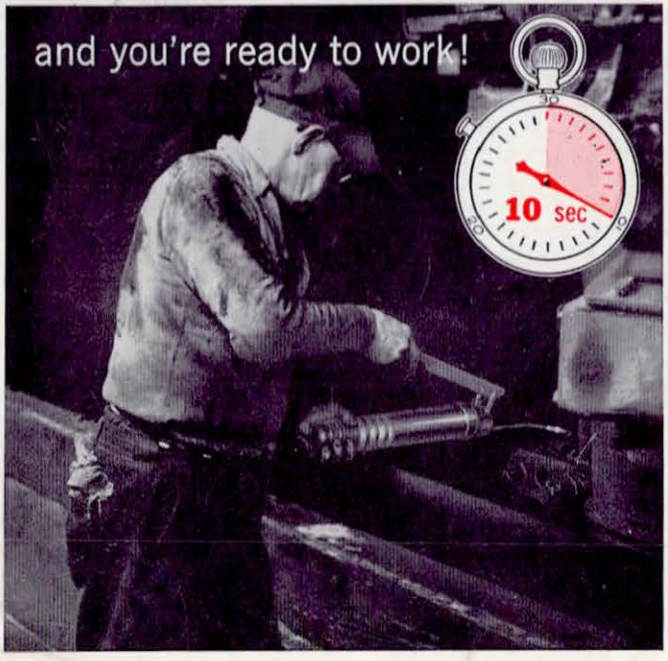

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